

## **Appendices**

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Note: Appendices 2 and 4 contain their own Supplemental Information Table of Contents.

## Appendix 1: Medicaid Trending for Cycle-Specific and National Rolling Error Rates

**Table A1. Inception to Date Cycle-Specific Medicaid Improper Payment Component Error Rates<sup>1</sup>**

| Year | FFS  | Managed Care | Eligibility | Overall*     |
|------|------|--------------|-------------|--------------|
| 2007 | 4.7% |              |             |              |
| 2008 | 8.9% | 3.1%         | 2.9%        | <b>10.5%</b> |
| 2009 | 2.6% | 0.1%         | 6.7%        | <b>8.7%</b>  |
| 2010 | 1.9% | 0.1%         | 7.6%        | <b>9.0%</b>  |
| 2011 | 3.6% | 0.5%         | 4.0%        | <b>6.7%</b>  |
| 2012 | 3.3% | 0.3%         | 3.3%        | <b>5.8%</b>  |
| 2013 | 3.4% | 0.2%         | 3.3%        | <b>5.7%</b>  |
| 2014 | 8.8% | 0.1%         | 2.3%        | <b>8.2%</b>  |

\*The overall estimate is comprised of the weighted sum of the FFS and managed care components, plus the eligibility component, minus a small adjustment to account for the overlap between the claims and eligibility review functions. From 2007-2013, the cycle-specific rate is calculated using data from the 17 States sampled and projected to the national level. For 2014, the cycle-specific rate represents only the 17 States sampled.

**Table A2. National Rolling Medicaid Improper Payment Component Error Rates**

| Year               | FFS  | Managed Care | Eligibility | Overall*    |
|--------------------|------|--------------|-------------|-------------|
| 2010 Rolling Rates | 4.4% | 1.0%         | 5.9%        | <b>9.4%</b> |
| 2011 Rolling Rates | 2.7% | 0.3%         | 6.0%        | <b>8.1%</b> |
| 2012 Rolling Rates | 3.0% | 0.3%         | 4.9%        | <b>7.1%</b> |
| 2013 Rolling Rates | 3.6% | 0.3%         | 3.3%        | <b>5.8%</b> |
| 2014 Rolling Rates | 5.1% | 0.2%         | 3.1%        | <b>6.7%</b> |

\*The overall estimate is comprised of the weighted sum of the FFS and managed care components, plus the eligibility component, minus a small adjustment to account for the overlap between the claims and eligibility review functions.

## Appendix 2: Medicaid Supplemental Information

CMS reported a rolling error rate for Medicaid in 2014 based on the 51 states reviewed from 2012-2014. Unless otherwise noted, all tables and figures in Appendix 2 are based on the rolling rate.

<sup>1</sup> From 2007 to 2013, we report the national error rate projected by 17 states. Starting from 2014, we report 17 states cycle rate.

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## Medicaid Overpayments and Underpayments

**Table S1. Summary of Medicaid Projected Improper Payments**

| Category  | Number of Sample Payment Errors | Number of Claims Sampled | Sample Dollars in Errors | Sample Dollars Paid    | Projected Dollars in Error (millions) | Projected Paid Amount (millions) | Error Rate  | 95% CI             |
|---|---------------------------------|--------------------------|--------------------------|------------------------|---------------------------------------|----------------------------------|-------------|--------------------|
| FFS   | 1,096                           | 19,377                   | \$2,355,397.7            | \$650,612,007.2        | \$15,926.1                            | \$314,482.7                      | 5.1%        | 4.0% - 6.1%        |
| FFS Medical Review  | 476                             | 19,377                   | \$552,995.4              | \$650,612,007.2        | \$5,608.8                             | \$314,482.7                      | 1.8%        | 1.4% - 2.2%        |
| FFS Data Processing   | 639                             | 19,377                   | \$1,809,742.3            | \$650,612,007.2        | \$10,831.3                            | \$314,482.7                      | 3.4%        | 2.5% - 4.4%        |
| Managed Care  | 94                              | 9,521                    | \$28,242.4               | \$8,747,130.0          | \$265.2                               | \$123,543.8                      | 0.2%        | 0.1% - 0.4%        |
| Eligibility   | 1,054                           | 25,914                   | \$419,948.2              | \$13,922,896.8         | \$13,599.3                            | \$438,026.5                      | 3.1%        | 2.2% - 4.0%        |
| <b>Total</b>  | <b>2,244</b>                    | <b>54,812</b>            | <b>\$2,803,588.2</b>     | <b>\$673,282,034.0</b> | <b>\$29,287.9</b>                     | <b>\$438,026.5</b>               | <b>6.7%</b> | <b>5.5% - 7.8%</b> |
| Note: Details do not always sum to the total due to rounding. |                                 |                          |                          |                        |                                       |                                  |             |                    |

**Table S2. Summary of Projected Medicaid Overpayments**

| Category  | Number of Sample Payment Errors | Number of Claims Sampled | Sample Dollars in Errors | Sample Dollars Paid    | Projected Dollars in Error (millions) | Projected Paid Amount (millions) | Error Rate  | 95% CI             |
|---|---------------------------------|--------------------------|--------------------------|------------------------|---------------------------------------|----------------------------------|-------------|--------------------|
| FFS   | 1,034                           | 19,377                   | \$2,327,577.0            | \$650,612,007.2        | \$15,106.4                            | \$314,482.7                      | 4.8%        | 3.8% - 5.8%        |
| FFS Medical Review  | 468                             | 19,377                   | \$529,401.9              | \$650,612,007.2        | \$5,565.8                             | \$314,482.7                      | 1.8%        | 1.4% - 2.1%        |
| FFS Data Processing   | 585                             | 19,377                   | \$1,805,515.2            | \$650,612,007.2        | \$10,054.6                            | \$314,482.7                      | 3.2%        | 2.3% - 4.1%        |
| Managed Care  | 32                              | 9,521                    | \$27,404.2               | \$8,747,130.0          | \$261.1                               | \$123,543.8                      | 0.2%        | 0.1% - 0.4%        |
| Eligibility   | 1,009                           | 25,914                   | \$414,366.4              | \$13,922,896.8         | \$13,195.4                            | \$438,026.5                      | 3.0%        | 2.1% - 4.0%        |
| <b>Total</b>  | <b>2,075</b>                    | <b>54,812</b>            | <b>\$2,769,347.7</b>     | <b>\$673,282,034.0</b> | <b>\$28,100.0</b>                     | <b>\$438,026.5</b>               | <b>6.4%</b> | <b>5.3% - 7.5%</b> |
| Note: Details do not always sum to the total due to rounding. |                                 |                          |                          |                        |                                       |                                  |             |                    |

**Table S3. Summary of Projected Medicaid Underpayments**

| Category            | Number of Sample Payment Errors | Number of Claims Sampled | Sample Dollars in Errors | Sample Dollars Paid    | Projected Dollars in Error (millions) | Projected Paid Amount (millions) | Error Rate  | 95% CI             |
|---------------------|---------------------------------|--------------------------|--------------------------|------------------------|---------------------------------------|----------------------------------|-------------|--------------------|
| FFS                 | 62                              | 19,377                   | \$27,820.6               | \$650,612,007.2        | \$819.7                               | \$314,482.7                      | 0.3%        | ( 0.1%) - 0.6%     |
| FFS Medical Review  | 8                               | 19,377                   | \$23,593.5               | \$650,612,007.2        | \$43.1                                | \$314,482.7                      | 0.0%        | 0.0% - 0.0%        |
| FFS Data Processing | 54                              | 19,377                   | \$4,227.1                | \$650,612,007.2        | \$776.6                               | \$314,482.7                      | 0.2%        | ( 0.1%) - 0.6%     |
| Managed Care        | 62                              | 9,521                    | \$838.1                  | \$8,747,130.0          | \$4.1                                 | \$123,543.8                      | 0.0%        | 0.0% - 0.0%        |
| Eligibility         | 45                              | 25,914                   | \$5,581.7                | \$13,922,896.8         | \$403.8                               | \$438,026.5                      | 0.1%        | 0.0% - 0.2%        |
| <b>Total</b>        | <b>169</b>                      | <b>54,812</b>            | <b>\$34,240.5</b>        | <b>\$673,282,034.0</b> | <b>\$1,226.9</b>                      | <b>\$438,026.5</b>               | <b>0.3%</b> | <b>0.0% - 0.5%</b> |

Note: Details do not always sum to the total due to rounding.

### Medicaid FFS Component Payment Error Rate

**Table S4. Medicaid FFS Medical Review and Data Processing Payment Error Rates by State**

| State           | Medical Review          |                         |             | Data Processing         |                         |             | Sample Paid Amount     | FFS Error Rate |
|-----------------|-------------------------|-------------------------|-------------|-------------------------|-------------------------|-------------|------------------------|----------------|
|                 | Number of Sample Errors | Sample Dollars in Error | Error Rate  | Number of Sample Errors | Sample Dollars in Error | Error Rate  |                        |                |
| <b>National</b> | <b>476</b>              | <b>\$552,995.4</b>      | <b>1.8%</b> | <b>639</b>              | <b>\$1,809,742.3</b>    | <b>3.4%</b> | <b>\$650,612,007.2</b> | <b>5.1%</b>    |
| ST1             | 13                      | \$1,043.4               | 2.7%        | 24                      | \$137,135.4             | 15.4%       | \$788,520.6            | 18.1%          |
| ST2             | 2                       | \$60.6                  | 0.1%        | 17                      | \$14,548.7              | 17.9%       | \$491,820.7            | 18.0%          |
| ST3             | 13                      | \$936.0                 | 2.6%        | 29                      | \$99,407.4              | 15.2%       | \$469,941.7            | 17.8%          |
| ST4             | 11                      | \$3,412.8               | 9.1%        | 22                      | \$12,909.4              | 8.6%        | \$155,472.9            | 17.7%          |
| ST5             | 17                      | \$9,878.5               | 16.5%       | 0                       | \$0.0                   | 0.0%        | \$341,268.3            | 16.5%          |
| ST6             | 5                       | \$4,345.9               | 1.8%        | 63                      | \$29,994.3              | 12.7%       | \$245,411.4            | 14.3%          |
| ST7             | 29                      | \$105,747.6             | 7.8%        | 22                      | \$21,338.5              | 7.2%        | \$3,972,914.8          | 13.2%          |
| ST8             | 7                       | \$2,046.9               | 11.0%       | 31                      | \$968.7                 | 0.9%        | \$172,272.3            | 11.9%          |
| ST9             | 2                       | \$23.9                  | 0.1%        | 18                      | \$30,421.4              | 11.7%       | \$198,955.9            | 11.8%          |
| ST10            | 9                       | \$923.1                 | 1.5%        | 41                      | \$20,036.9              | 10.7%       | \$391,570.6            | 11.2%          |

| State | Medical Review          |                         |            | Data Processing         |                         |            | Sample Paid Amount | FFS Error Rate |
|-------|-------------------------|-------------------------|------------|-------------------------|-------------------------|------------|--------------------|----------------|
|       | Number of Sample Errors | Sample Dollars in Error | Error Rate | Number of Sample Errors | Sample Dollars in Error | Error Rate |                    |                |
| ST11  | 10                      | \$679.9                 | 1.8%       | 53                      | \$148,511.4             | 9.3%       | \$905,762.2        | 11.1%          |
| ST12  | 17                      | \$551.9                 | 2.5%       | 17                      | \$36,154.4              | 9.7%       | \$207,175.8        | 11.1%          |
| ST13  | 23                      | \$32,176.0              | 8.1%       | 12                      | \$864,301.9             | 2.2%       | \$50,822,755.2     | 10.3%          |
| ST14  | 16                      | \$6,564.1               | 5.4%       | 25                      | \$22,523.0              | 4.8%       | \$259,270.9        | 10.2%          |
| ST15  | 17                      | \$8,075.1               | 8.2%       | 9                       | \$856.3                 | 1.0%       | \$215,433.1        | 9.2%           |
| ST16  | 11                      | \$4,418.5               | 5.4%       | 6                       | \$6,692.3               | 4.9%       | \$305,068.2        | 7.7%           |
| ST17  | 10                      | \$448.1                 | 1.8%       | 8                       | \$694.3                 | 5.1%       | \$66,243.4         | 6.9%           |
| ST18  | 2                       | \$18.8                  | 0.0%       | 16                      | \$18,666.2              | 6.3%       | \$218,090.1        | 6.3%           |
| ST19  | 10                      | \$54,002.7              | 5.0%       | 5                       | \$40,430.2              | 1.1%       | \$1,442,647.1      | 6.0%           |
| ST20  | 1                       | \$252.6                 | 1.5%       | 12                      | \$8,965.0               | 4.3%       | \$238,659.5        | 5.8%           |
| ST21  | 6                       | \$1,067.7               | 0.8%       | 15                      | \$5,567.8               | 4.8%       | \$276,904.8        | 5.6%           |
| ST22  | 19                      | \$37,698.6              | 5.2%       | 2                       | \$4.4                   | 0.0%       | \$1,045,614.5      | 5.2%           |
| ST23  | 13                      | \$1,909.9               | 2.2%       | 31                      | \$37,278.0              | 2.6%       | \$1,274,463.9      | 4.5%           |
| ST24  | 17                      | \$21,787.3              | 4.0%       | 4                       | \$87.5                  | 0.3%       | \$434,396.9        | 4.4%           |
| ST25  | 7                       | \$10,201.0              | 1.4%       | 2                       | \$190.5                 | 2.7%       | \$2,659,056.7      | 4.1%           |
| ST26  | 6                       | \$5,326.2               | 4.0%       | 3                       | \$150.0                 | 0.0%       | \$1,065,956.2      | 4.0%           |
| ST27  | 4                       | \$12,151.0              | 1.9%       | 28                      | \$7,700.8               | 2.1%       | \$239,443.6        | 4.0%           |
| ST28  | 12                      | \$22,889.3              | 3.1%       | 4                       | \$644.8                 | 0.8%       | \$1,305,909.7      | 3.9%           |
| ST29  | 0                       | \$0.0                   | 0.0%       | 9                       | \$201,415.8             | 3.4%       | \$4,192,526.4      | 3.4%           |
| ST30  | 9                       | \$9,798.0               | 2.1%       | 2                       | \$213.3                 | 1.4%       | \$200,416.9        | 3.4%           |
| ST31  | 20                      | \$36,582.5              | 3.2%       | 0                       | \$0.0                   | 0.0%       | \$1,346,874.0      | 3.2%           |
| ST32  | 18                      | \$36,727.1              | 2.9%       | 12                      | \$3,709.1               | 0.1%       | \$4,067,344.1      | 3.0%           |
| ST33  | 6                       | \$19,968.3              | 1.2%       | 13                      | \$30,240.2              | 1.6%       | \$1,580,596.0      | 2.8%           |
| ST34  | 1                       | \$54.3                  | 0.3%       | 19                      | \$3,240.4               | 2.4%       | \$192,491.3        | 2.7%           |
| ST35  | 7                       | \$11,028.3              | 2.7%       | 1                       | \$4.0                   | 0.0%       | \$721,079.3        | 2.7%           |
| ST36  | 4                       | \$7,316.1               | 2.3%       | 0                       | \$0.0                   | 0.0%       | \$337,425.3        | 2.3%           |
| ST37  | 4                       | \$523.5                 | 2.0%       | 1                       | \$57.8                  | 0.3%       | \$280,557.3        | 2.2%           |
| ST38  | 8                       | \$797.4                 | 1.7%       | 4                       | \$171.7                 | 0.4%       | \$554,588,854.1    | 2.1%           |
| ST39  | 11                      | \$2,833.2               | 1.7%       | 13                      | \$415.3                 | 0.3%       | \$343,381.7        | 2.0%           |

| State | Medical Review          |                         |            | Data Processing         |                         |            | Sample Paid Amount | FFS Error Rate |
|-------|-------------------------|-------------------------|------------|-------------------------|-------------------------|------------|--------------------|----------------|
|       | Number of Sample Errors | Sample Dollars in Error | Error Rate | Number of Sample Errors | Sample Dollars in Error | Error Rate |                    |                |
| ST40  | 26                      | \$18,824.4              | 1.5%       | 11                      | \$525.3                 | 0.4%       | \$918,309.5        | 1.8%           |
| ST41  | 15                      | \$18,958.4              | 1.6%       | 3                       | \$101.6                 | 0.1%       | \$3,441,314.1      | 1.7%           |
| ST42  | 4                       | \$118.9                 | 1.3%       | 3                       | \$39.9                  | 0.1%       | \$350,341.8        | 1.4%           |
| ST43  | 7                       | \$7,457.7               | 1.4%       | 0                       | \$0.0                   | 0.0%       | \$475,998.2        | 1.4%           |
| ST44  | 5                       | \$609.5                 | 1.4%       | 1                       | \$1,564.3               | 0.0%       | \$1,003,421.5      | 1.4%           |
| ST45  | 4                       | \$13,087.6              | 1.2%       | 2                       | \$362.7                 | 0.1%       | \$2,506,197.4      | 1.2%           |
| ST46  | 4                       | \$6,944.4               | 0.6%       | 14                      | \$1,229.9               | 0.3%       | \$628,397.0        | 0.9%           |
| ST47  | 6                       | \$6,604.5               | 0.8%       | 1                       | \$3.0                   | 0.0%       | \$1,919,593.4      | 0.8%           |
| ST48  | 1                       | \$42.5                  | 0.5%       | 2                       | \$6.5                   | 0.1%       | \$323,484.9        | 0.6%           |
| ST49  | 5                       | \$5,769.7               | 0.4%       | 3                       | \$41.3                  | 0.0%       | \$512,035.5        | 0.4%           |
| ST50  | 1                       | \$294.0                 | 0.3%       | 0                       | \$0.0                   | 0.0%       | \$194,993.1        | 0.3%           |
| ST51  | 1                       | \$17.6                  | 0.0%       | 6                       | \$221.0                 | 0.2%       | \$275,373.1        | 0.2%           |

### *Medicaid FFS Payment Errors by Type of Error*

**Table S5. Summary of Medicaid FFS Projected Dollars by Type of Error**

| Error Type                 | Number of Payment Errors | Sample Dollars in Errors | Sample Dollars Paid | Projected Dollars in Error (millions) | Lower Confidence Limit (millions) | Upper Confidence Limit (millions) |
|----------------------------|--------------------------|--------------------------|---------------------|---------------------------------------|-----------------------------------|-----------------------------------|
| Non-covered Service        | 448                      | \$617,568.7              | \$622,388.5         | \$7,401.3                             | \$5,077.7                         | \$9,724.8                         |
| Insufficient Documentation | 197                      | \$188,025.2              | \$188,025.2         | \$2,322.0                             | \$1,812.6                         | \$2,831.5                         |
| Logic Edit                 | 19                       | \$176,325.2              | \$176,553.7         | \$1,947.2                             | \$896.4                           | \$2,998.0                         |
| Policy Violation           | 66                       | \$89,574.5               | \$92,961.2          | \$1,079.9                             | \$670.6                           | \$1,489.1                         |
| No Documentation           | 109                      | \$57,216.2               | \$57,216.2          | \$970.5                               | \$662.3                           | \$1,278.7                         |
| Number of Unit(s) Error    | 48                       | \$88,756.4               | \$321,655.0         | \$582.0                               | -\$16.0                           | \$1,180.1                         |
| Admin/Other                | 32                       | \$30,064.8               | \$30,363.5          | \$431.9                               | \$148.1                           | \$715.7                           |
| Data Entry Error           | 2                        | \$902.4                  | \$1.5               | \$339.7                               | -\$219.6                          | \$899.0                           |

| Error Type  | Number of Payment Errors | Sample Dollars in Errors | Sample Dollars Paid    | Projected Dollars in Error (millions) | Lower Confidence Limit (millions) | Upper Confidence Limit (millions) |
|---|--------------------------|--------------------------|------------------------|---------------------------------------|-----------------------------------|-----------------------------------|
| Pricing Error   | 107                      | \$890,268.3              | \$4,745,687.8          | \$287.4                               | \$39.3                            | \$535.5                           |
| Diagnosis Coding Error  | 20                       | \$118,603.6              | \$318,934.4            | \$199.7                               | \$82.7                            | \$316.8                           |
| Third-party Liability   | 10                       | \$6,316.4                | \$28,362.1             | \$142.1                               | \$18.7                            | \$265.6                           |
| FFS Claim for Managed Care Service                            | 15                       | \$87,631.1               | \$87,631.1             | \$134.7                               | \$1.8                             | \$267.7                           |
| Procedure Coding Error  | 9                        | \$593.8                  | \$753.3                | \$61.7                                | \$13.3                            | \$110.1                           |
| Duplicate Item  | 9                        | \$864.1                  | \$10,936.7             | \$19.2                                | -\$4.3                            | \$42.8                            |
| Medically Unnecessary   | 4                        | \$2,683.1                | \$4,236.4              | \$5.2                                 | -\$0.4                            | \$10.7                            |
| Unbundling  | 1                        | \$3.8                    | \$3.8                  | \$1.4                                 | N/A                               | N/A                               |
| <b>Total</b>  | <b>1,096</b>             | <b>\$2,355,397.7</b>     | <b>\$650,612,007.2</b> | <b>\$15,926.1</b>                     | <b>\$13,121.1</b>                 | <b>\$18,731.2</b>                 |
| Note: Details do not always sum to the total due to rounding. |                          |                          |                        |                                       |                                   |                                   |

### *Medicaid FFS Medical Review Payment Errors*

**Table S6. Summary of Medicaid FFS Medical Review Overall Errors**

| Error Type  | Number of Payment Errors | Sample Dollars in Errors | Sample Dollars Paid    | Projected Dollars in Error (millions) | Lower Confidence Limit (millions) | Upper Confidence Limit (millions) |
|---|--------------------------|--------------------------|------------------------|---------------------------------------|-----------------------------------|-----------------------------------|
| Insufficient Documentation                                    | 197                      | \$188,025.2              | \$188,025.2            | \$2,322.0                             | \$1,812.6                         | \$2,831.5                         |
| Policy Violation  | 66                       | \$89,574.5               | \$92,961.2             | \$1,079.9                             | \$670.6                           | \$1,489.1                         |
| No Documentation  | 109                      | \$57,214.1               | \$57,216.2             | \$970.5                               | \$662.3                           | \$1,278.7                         |
| Number of Unit(s) Error                                       | 48                       | \$88,426.4               | \$321,655.0            | \$578.8                               | -\$19.2                           | \$1,176.8                         |
| Admin/Other   | 22                       | \$7,871.0                | \$8,169.6              | \$389.5                               | \$107.6                           | \$671.4                           |
| Diagnosis Coding Error  | 20                       | \$118,603.6              | \$318,934.4            | \$199.7                               | \$82.7                            | \$316.8                           |
| Procedure Coding Error  | 9                        | \$593.8                  | \$753.3                | \$61.7                                | \$13.3                            | \$110.1                           |
| Medically Unnecessary   | 4                        | \$2,683.1                | \$4,236.4              | \$5.2                                 | -\$0.4                            | \$10.7                            |
| Unbundling  | 1                        | \$3.8                    | \$3.8                  | \$1.4                                 | N/A                               | N/A                               |
| <b>Total</b>  | <b>476</b>               | <b>\$552,995.4</b>       | <b>\$650,612,007.2</b> | <b>\$5,608.8</b>                      | <b>\$4,625.3</b>                  | <b>\$6,592.4</b>                  |
| Note: Details do not always sum to the total due to rounding. |                          |                          |                        |                                       |                                   |                                   |



**Table S7. Summary of Medicaid FFS Medical Review Overpayment Errors**

| Error Type  | Number of Payment Errors | Sample Dollars in Errors | Sample Dollars Paid    | Projected Dollars in Error (millions) | Lower Confidence Limit (millions) | Upper Confidence Limit (millions) |
|---|--------------------------|--------------------------|------------------------|---------------------------------------|-----------------------------------|-----------------------------------|
| Insufficient Documentation                                    | 197                      | \$188,025.2              | \$188,025.2            | \$2,322.0                             | \$1,812.6                         | \$2,831.5                         |
| Policy Violation  | 66                       | \$89,574.5               | \$92,961.2             | \$1,079.9                             | \$670.6                           | \$1,489.1                         |
| No Documentation  | 109                      | \$57,214.1               | \$57,216.2             | \$970.5                               | \$662.3                           | \$1,278.7                         |
| Number of Unit(s) Error                                       | 48                       | \$88,426.4               | \$321,655.0            | \$578.8                               | -\$19.2                           | \$1,176.8                         |
| Admin/Other   | 22                       | \$7,871.0                | \$8,169.6              | \$389.5                               | \$107.6                           | \$671.4                           |
| Diagnosis Coding Error  | 14                       | \$95,053.5               | \$318,934.4            | \$160.3                               | \$48.7                            | \$271.9                           |
| Procedure Coding Error  | 7                        | \$550.4                  | \$753.3                | \$58.1                                | \$9.9                             | \$106.3                           |
| Medically Unnecessary   | 4                        | \$2,683.1                | \$4,236.4              | \$5.2                                 | -\$0.4                            | \$10.7                            |
| Unbundling  | 1                        | \$3.8                    | \$3.8                  | \$1.4                                 | N/A                               | N/A                               |
| <b>Total</b>  | <b>468</b>               | <b>\$529,401.9</b>       | <b>\$650,612,007.2</b> | <b>\$5,565.8</b>                      | <b>\$4,582.7</b>                  | <b>\$6,548.8</b>                  |
| Note: Details do not always sum to the total due to rounding. |                          |                          |                        |                                       |                                   |                                   |

**Table S8. Summary of Medicaid FFS Medical Review Underpayment Errors**

| Error Type  | Number of Payment Errors | Sample Dollars in Errors | Sample Dollars Paid    | Projected Dollars in Error (millions) | Lower Confidence Limit (millions) | Upper Confidence Limit (millions) |
|---|--------------------------|--------------------------|------------------------|---------------------------------------|-----------------------------------|-----------------------------------|
| Diagnosis Coding Error  | 6                        | \$23,550.1               | \$318,934.4            | \$39.5                                | \$4.3                             | \$74.6                            |
| Procedure Coding Error  | 2                        | \$43.4                   | \$753.3                | \$3.6                                 | -\$0.6                            | \$7.8                             |
| Admin/Other   | 0                        | \$0.0                    | \$8,169.6              | \$0.0                                 | \$0.0                             | \$0.0                             |
| Insufficient Documentation                                    | 0                        | \$0.0                    | \$188,025.2            | \$0.0                                 | \$0.0                             | \$0.0                             |
| Medically Unnecessary   | 0                        | \$0.0                    | \$4,236.4              | \$0.0                                 | \$0.0                             | \$0.0                             |
| No Documentation  | 0                        | \$0.0                    | \$57,216.2             | \$0.0                                 | \$0.0                             | \$0.0                             |
| Number of Unit(s) Error                                       | 0                        | \$0.0                    | \$321,655.0            | \$0.0                                 | \$0.0                             | \$0.0                             |
| Policy Violation  | 0                        | \$0.0                    | \$92,961.2             | \$0.0                                 | \$0.0                             | \$0.0                             |
| Unbundling  | 0                        | \$0.0                    | \$3.8                  | \$0.0                                 | N/A                               | N/A                               |
| <b>Total</b>  | <b>8</b>                 | <b>\$23,593.5</b>        | <b>\$650,612,007.2</b> | <b>\$43.1</b>                         | <b>\$7.7</b>                      | <b>\$78.5</b>                     |
| Note: Details do not always sum to the total due to rounding. |                          |                          |                        |                                       |                                   |                                   |

***Medical Review Payment Errors: Insufficient Documentation***

**Table S9. Specific Causes of "Insufficient Documentation" Error**

| Cause of Error  | Number of Sample Payment Errors | Sample Dollars in Errors | Projected Dollars in Error (millions) | Lower Confidence Limit (millions) | Upper Confidence Limit (millions) |
|---|---------------------------------|--------------------------|---------------------------------------|-----------------------------------|-----------------------------------|
| Provider did not supply sufficient documentation to support the claim                         | 84                              | \$92,036.0               | \$1,038.6                             | \$979.3                           | \$1,097.9                         |
| No response to request for additional documents   | 47                              | \$34,444.1               | \$554.3                               | \$542.2                           | \$566.3                           |
| Medical records do not contain the provider's order   | 19                              | \$27,574.2               | \$322.2                               | \$292.5                           | \$351.9                           |
| Medical records do not contain daily documentation of specific tasks performed on sampled DOS | 16                              | \$2,348.5                | \$135.1                               | \$109.6                           | \$160.6                           |
| Provider did not supply a valid prescription  | 2                               | \$111.2                  | \$76.3                                | \$76.3                            | \$76.3                            |
| Medical records do not contain the service plan   | 7                               | \$2,751.1                | \$73.5                                | \$44.7                            | \$102.3                           |
| Evidence recipient present on DOS missing from submitted documentation                        | 2                               | \$94.5                   | \$40.7                                | \$40.7                            | \$40.7                            |
| The Individual Plan was provided but was not applicable to the sampled DOS                    | 9                               | \$24,950.7               | \$39.3                                | \$31.9                            | \$46.7                            |
| Pharmacy signature log not provided   | 5                               | \$297.7                  | \$18.5                                | \$14.0                            | \$23.0                            |
| Required progress notes applicable to DOS sampled not provided                                | 3                               | \$2,877.1                | \$10.9                                | \$10.9                            | \$10.9                            |
| No Attendance log/census provided   | 1                               | \$19.2                   | \$6.0                                 | N/A                               | N/A                               |
| Face to face assessment documentation not provided  | 1                               | \$507.9                  | \$5.9                                 | N/A                               | N/A                               |
| Required signed timesheet not provided  | 1                               | \$13.1                   | \$1.0                                 | N/A                               | N/A                               |
| <b>Total</b>  | <b>197</b>                      | <b>\$188,025.2</b>       | <b>\$2,322.0</b>                      | <b>\$2,259.4</b>                  | <b>\$2,384.7</b>                  |
| Note: Details do not always sum to the total due to rounding.                                 |                                 |                          |                                       |                                   |                                   |

***Medical Review Payment Errors: Policy Violation***

**Table S10. Specific Causes of "Policy Violation" Error**

| Cause of Error  | Number of Payment Errors | Sample Dollars in Errors | Projected Dollars in Error (millions) | Lower Confidence Limit (millions) | Upper Confidence Limit (millions) |
|---|--------------------------|--------------------------|---------------------------------------|-----------------------------------|-----------------------------------|
| Documentation does not meet the State policy requirements for the service performed       | 53                       | \$72,274.2               | \$793.5                               | \$667.1                           | \$920.0                           |
| Required provider signature and/or credentials not provided                               | 8                        | \$17,099.3               | \$268.0                               | \$268.0                           | \$268.0                           |
| Required record of recipient acceptance or refusal of medication counseling not available | 2                        | \$26.0                   | \$16.1                                | \$16.1                            | \$16.1                            |
| Other   | 2                        | \$164.1                  | \$2.0                                 | \$2.0                             | \$2.0                             |
| Required supervision documentation not provided   | 1                        | \$11.0                   | \$0.2                                 | N/A                               | N/A                               |
| <b>Total</b>  | <b>66</b>                | <b>\$89,574.5</b>        | <b>\$1,079.9</b>                      | <b>\$953.5</b>                    | <b>\$1,206.3</b>                  |
| Note: Details do not always sum to the total due to rounding.                             |                          |                          |                                       |                                   |                                   |

***Medical Review Payment Errors: No Documentation***

**Table S11. Specific Causes of "No Documentation" Error**

| Cause of Error  | Number of Payment Errors | Sample Dollars in Errors | Projected Dollars in Error (millions) | Lower Confidence Limit (millions) | Upper Confidence Limit (millions) |
|---|--------------------------|--------------------------|---------------------------------------|-----------------------------------|-----------------------------------|
| Provider did not respond to the request for records           | 80                       | \$51,394.7               | \$772.6                               | \$753.2                           | \$791.9                           |
| Provider under fraud investigation                            | 2                        | \$36.6                   | \$51.3                                | \$51.3                            | \$51.3                            |
| Provider states recipient not seen on sampled DOS             | 9                        | \$480.4                  | \$48.0                                | \$30.7                            | \$65.3                            |
| Provider out of business/retired and record is not available  | 4                        | \$4,191.5                | \$43.9                                | \$43.9                            | \$43.9                            |
| State could not locate provider                               | 4                        | \$221.6                  | \$27.2                                | \$27.0                            | \$27.4                            |
| Provider did not have patient on file or in their system      | 6                        | \$308.9                  | \$15.8                                | \$15.8                            | \$15.8                            |
| Provider cannot locate record                                 | 2                        | \$292.5                  | \$10.7                                | -\$5.6                            | \$27.0                            |
| Other   | 1                        | \$142.4                  | \$0.6                                 | N/A                               | N/A                               |
| Provider did not document the encounter                       | 1                        | \$145.6                  | \$0.5                                 | N/A                               | N/A                               |
| <b>Total</b>  | <b>109</b>               | <b>\$57,214.1</b>        | <b>\$970.5</b>                        | <b>\$947.4</b>                    | <b>\$993.6</b>                    |
| Note: Details do not always sum to the total due to rounding. |                          |                          |                                       |                                   |                                   |

***Medicaid FFS Medical Review Errors by Service Type***

**Table S12. Medicaid FFS Medical Review Error by Service Type**

| Category  | Number of Sample Payment Errors | Number of Claims Sampled | Sample Dollars in Errors | Sample Dollars Paid | Projected Dollars in Error (millions) | Projected Paid Amount (millions) | Error Rate | 95% CI      |
|---|---------------------------------|--------------------------|--------------------------|---------------------|---------------------------------------|----------------------------------|------------|-------------|
| Prescribed Drugs  | 63                              | 1,764                    | \$7,737.7                | \$930,381.4         | \$1,009.7                             | \$30,600.5                       | 3.3%       | 1.8% - 4.8% |
| Personal Support Services   | 59                              | 1,255                    | \$46,349.1               | \$1,388,887.8       | \$958.5                               | \$35,652.3                       | 2.7%       | 0.6% - 4.8% |
| Nursing Facility, Intermediate Care Facilities  | 46                              | 1,982                    | \$173,585.2              | \$8,439,403.7       | \$909.8                               | \$64,890.1                       | 1.4%       | 0.7% - 2.1% |
| Habilitation and Waiver Programs, School Services   | 84                              | 1,925                    | \$68,894.8               | \$2,442,938.8       | \$556.8                               | \$28,308.2                       | 2.0%       | 1.3% - 2.6% |
| Physicians and Other Licensed Practitioner Services   | 33                              | 837                      | \$5,965.5                | \$151,392.0         | \$426.3                               | \$11,436.6                       | 3.7%       | 1.3% - 6.1% |
| Outpatient Hospital Services and Clinics  | 32                              | 1,319                    | \$7,502.9                | \$617,053.4         | \$392.3                               | \$13,228.8                       | 3.0%       | 1.8% - 4.1% |
| Inpatient and Outpatient Hospital   | 37                              | 2,215                    | \$165,329.2              | \$21,408,828.9      | \$252.6                               | \$40,648.5                       | 0.6%       | 0.3% - 1.0% |
| ICF for the Mentally Retarded and Group Homes   | 11                              | 387                      | \$35,868.7               | \$5,091,653.8       | \$251.8                               | \$10,809.8                       | 2.3%       | 1.3% - 3.4% |
| Psychiatric, Mental Health, and Behavioral Health Services  | 33                              | 1,043                    | \$25,752.2               | \$2,325,498.4       | \$241.1                               | \$17,223.7                       | 1.4%       | 0.6% - 2.2% |
| Transportation and Accommodations   | 18                              | 273                      | \$581.8                  | \$57,887.5          | \$182.1                               | \$3,757.3                        | 4.8%       | 0.0% - 9.7% |
| Durable Medical Equipment (DME) and Supplies, Prosthetic/Orthopedic Devices and Environmental Modifications | 12                              | 294                      | \$2,525.9                | \$118,562.8         | \$154.5                               | \$3,391.2                        | 4.6%       | 2.9% - 6.2% |
| Dental and Other Oral Surgery Services  | 21                              | 588                      | \$2,703.8                | \$62,938.6          | \$78.2                                | \$6,995.6                        | 1.1%       | 0.7% - 1.5% |
| Therapies, Hearing and Rehabilitation Services  | 2                               | 82                       | \$134.0                  | \$5,287.9           | \$63.8                                | \$972.6                          | 6.6%       | 6.1% - 7.0% |
| Laboratory, X-ray and Imaging Services  | 17                              | 425                      | \$624.4                  | \$13,590.7          | \$42.2                                | \$1,759.6                        | 2.4%       | 0.3% - 4.5% |
| Home Health Services  | 4                               | 298                      | \$600.5                  | \$96,904.6          | \$31.1                                | \$10,271.2                       | 0.3%       | 0.0% - 0.6% |

| Category  | Number of Sample Payment Errors | Number of Claims Sampled | Sample Dollars in Errors | Sample Dollars Paid    | Projected Dollars in Error (millions) | Projected Paid Amount (millions) | Error Rate  | 95% CI             |
|---|---------------------------------|--------------------------|--------------------------|------------------------|---------------------------------------|----------------------------------|-------------|--------------------|
| Hospice Services  | 1                               | 70                       | \$8,750.3                | \$201,852.2            | \$29.6                                | \$1,773.7                        | 1.7%        | 1.3% - 2.0%        |
| Vision: Ophthalmology, Optometry and Optical Services         | 3                               | 88                       | \$89.3                   | \$3,017.6              | \$28.5                                | \$456.6                          | 6.2%        | 5.9% - 6.6%        |
| Capitated Care/Fixed Payments                                 | 0                               | 2,203                    | \$0.0                    | \$607,029,288.7        | \$0.0                                 | \$24,614.7                       | 0.0%        | 0.0% - 0.0%        |
| Crossover Claims  | 0                               | 731                      | \$0.0                    | \$226,638.1            | \$0.0                                 | \$7,691.8                        | 0.0%        | 0.0% - 0.0%        |
| Denied Claims   | 0                               | 1,598                    | \$0.0                    | \$0.0                  | \$0.0                                 | \$0.0                            | N/A         | N/A                |
| <b>Total</b>  | <b>476</b>                      | <b>19,377</b>            | <b>\$552,995.4</b>       | <b>\$650,612,007.2</b> | <b>\$5,608.8</b>                      | <b>\$314,482.7</b>               | <b>1.8%</b> | <b>1.4% - 2.2%</b> |
| Note: Details do not always sum to the total due to rounding. |                                 |                          |                          |                        |                                       |                                  |             |                    |

### Medicaid FFS Data Processing Payment Errors

**Table S13. Summary of Medicaid FFS Data Processing Overall Errors**

| Error Type  | Number of Payment Errors | Sample Dollars in Errors | Sample Dollars Paid    | Projected Dollars in Error (millions) | Lower Confidence Limit (millions) | Upper Confidence Limit (millions) |
|---|--------------------------|--------------------------|------------------------|---------------------------------------|-----------------------------------|-----------------------------------|
| Non-covered Service   | 460                      | \$623,853.5              | \$628,673.2            | \$7,891.6                             | \$5,492.1                         | \$10,291.2                        |
| Logic Edit  | 22                       | \$176,847.7              | \$177,076.2            | \$1,968.5                             | \$917.4                           | \$3,019.6                         |
| Data Entry Error  | 2                        | \$902.4                  | \$1.5                  | \$339.7                               | -\$219.6                          | \$899.0                           |
| Pricing Error   | 110                      | \$890,638.3              | \$4,756,892.2          | \$287.9                               | \$39.8                            | \$536.0                           |
| Third-party Liability   | 10                       | \$6,316.4                | \$28,362.1             | \$142.1                               | \$18.7                            | \$265.6                           |
| FFS Claim for Managed Care Service                            | 15                       | \$87,631.1               | \$87,631.1             | \$134.7                               | \$1.8                             | \$267.7                           |
| Admin/Other   | 11                       | \$22,688.9               | \$22,688.9             | \$47.4                                | \$13.8                            | \$81.1                            |
| Duplicate Item  | 9                        | \$864.1                  | \$10,936.7             | \$19.2                                | -\$4.3                            | \$42.8                            |
| <b>Total</b>  | <b>639</b>               | <b>\$1,809,742.3</b>     | <b>\$650,612,007.2</b> | <b>\$10,831.3</b>                     | <b>\$8,135.1</b>                  | <b>\$13,527.5</b>                 |
| Note: Details do not always sum to the total due to rounding. |                          |                          |                        |                                       |                                   |                                   |

**Table S14. Summary of Medicaid FFS Data Processing Overpayment Errors**

| Error Type  | Number of Payment Errors | Sample Dollars in Errors | Sample Dollars Paid    | Projected Dollars in Error (millions) | Lower Confidence Limit (millions) | Upper Confidence Limit (millions) |
|---|--------------------------|--------------------------|------------------------|---------------------------------------|-----------------------------------|-----------------------------------|
| Non-covered Service   | 460                      | \$623,853.5              | \$628,673.2            | \$7,891.6                             | \$5,492.1                         | \$10,291.2                        |
| Logic Edit  | 20                       | \$176,742.7              | \$177,076.2            | \$1,553.8                             | \$709.9                           | \$2,397.6                         |
| Pricing Error   | 60                       | \$887,464.0              | \$4,756,892.2          | \$267.5                               | \$19.9                            | \$515.2                           |
| Third-party Liability   | 9                        | \$6,270.9                | \$28,362.1             | \$140.3                               | \$16.9                            | \$263.7                           |
| FFS Claim for Managed Care Service                            | 15                       | \$87,631.1               | \$87,631.1             | \$134.7                               | \$1.8                             | \$267.7                           |
| Admin/Other   | 11                       | \$22,688.9               | \$22,688.9             | \$47.4                                | \$13.8                            | \$81.1                            |
| Duplicate Item  | 9                        | \$864.1                  | \$10,936.7             | \$19.2                                | -\$4.3                            | \$42.8                            |
| Data Entry Error  | 1                        | \$0.0                    | \$1.5                  | \$0.0                                 | N/A                               | N/A                               |
| <b>Total</b>  | <b>585</b>               | <b>\$1,805,515.2</b>     | <b>\$650,612,007.2</b> | <b>\$10,054.6</b>                     | <b>\$7,492.7</b>                  | <b>\$12,616.6</b>                 |
| Note: Details do not always sum to the total due to rounding. |                          |                          |                        |                                       |                                   |                                   |

**Table S15. Summary of Medicaid FFS Data Processing Underpayment Errors**

| Error Type  | Number of Payment Errors | Sample Dollars in Errors | Sample Dollars Paid    | Projected Dollars in Error (millions) | Lower Confidence Limit (millions) | Upper Confidence Limit (millions) |
|---|--------------------------|--------------------------|------------------------|---------------------------------------|-----------------------------------|-----------------------------------|
| Logic Edit  | 2                        | \$105.0                  | \$177,076.2            | \$414.7                               | -\$212.0                          | \$1,041.4                         |
| Data Entry Error  | 1                        | \$902.4                  | \$1.5                  | \$339.7                               | N/A                               | N/A                               |
| Pricing Error   | 50                       | \$3,174.3                | \$4,756,892.2          | \$20.4                                | \$4.8                             | \$35.9                            |
| Third-party Liability   | 1                        | \$45.5                   | \$28,362.1             | \$1.8                                 | N/A                               | N/A                               |
| Admin/Other   | 0                        | \$0.0                    | \$22,688.9             | \$0.0                                 | \$0.0                             | \$0.0                             |
| Duplicate Item  | 0                        | \$0.0                    | \$10,936.7             | \$0.0                                 | \$0.0                             | \$0.0                             |
| FFS Claim for Managed Care Service                            | 0                        | \$0.0                    | \$87,631.1             | \$0.0                                 | \$0.0                             | \$0.0                             |
| Non-covered Service   | 0                        | \$0.0                    | \$628,673.2            | \$0.0                                 | \$0.0                             | \$0.0                             |
| <b>Total</b>  | <b>54</b>                | <b>\$4,227.1</b>         | <b>\$650,612,007.2</b> | <b>\$776.6</b>                        | <b>-\$63.5</b>                    | <b>\$1,616.8</b>                  |
| Note: Details do not always sum to the total due to rounding. |                          |                          |                        |                                       |                                   |                                   |



***Data Processing Payment Errors: Non-covered Service***

**Table S16. Specific Causes of "Non-covered Service" Error**

| Cause of Error   | Number of Payment Errors | Sample Dollars in Errors | Projected Dollars in Error (millions) | Lower Confidence Limit (millions) | Upper Confidence Limit (millions) |
|--|--------------------------|--------------------------|---------------------------------------|-----------------------------------|-----------------------------------|
| Provider not enrolled in Medicaid/CHIP   | 47                       | \$139,345.2              | \$1,594.3                             | \$843.1                           | \$2,345.5                         |
| Referring/ordering provider not enrolled                                       | 64                       | \$10,739.1               | \$1,572.9                             | \$742.1                           | \$2,403.8                         |
| Prior authorization required or not current for DOS                            | 11                       | \$4,029.7                | \$1,546.3                             | \$1,544.0                         | \$1,548.6                         |
| Attending or rendering provider required but not listed on institutional claim | 80                       | \$277,186.0              | \$1,329.2                             | \$1,095.7                         | \$1,562.7                         |
| New provider not enrolled using ACA risk-based criteria                        | 108                      | \$129,716.3              | \$951.5                               | \$568.8                           | \$1,334.3                         |
| Referring/ordering provider required but not listed on claim                   | 71                       | \$4,005.3                | \$373.9                               | \$260.3                           | \$487.6                           |
| Other  | 39                       | \$34,843.4               | \$312.2                               | \$200.2                           | \$424.2                           |
| Recipient not eligible for applicable program on DOS                           | 36                       | \$8,092.3                | \$177.4                               | \$172.1                           | \$182.7                           |
| HB-Services not approved by Service Plan                                       | 1                        | \$85.3                   | \$26.3                                | N/A                               | N/A                               |
| Required provider license not current for DOS                                  | 2                        | \$15,795.9               | \$6.2                                 | -\$2.3                            | \$14.8                            |
| CLIA certification not current for DOS   | 1                        | \$15.1                   | \$1.3                                 | N/A                               | N/A                               |
| <b>Total</b>   | <b>460</b>               | <b>\$623,853.5</b>       | <b>\$7,891.6</b>                      | <b>\$6,689.4</b>                  | <b>\$9,093.9</b>                  |
| Note: Details do not always sum to the total due to rounding.                  |                          |                          |                                       |                                   |                                   |

*Data Processing Payment Errors: Logic Edit*

**Table S17. Specific Causes of "Logic Edit" Error**

| Cause of Error  | Number of Payment Errors | Sample Dollars in Errors | Projected Dollars in Error (millions) | Lower Confidence Limit (millions) | Upper Confidence Limit (millions) |
|---|--------------------------|--------------------------|---------------------------------------|-----------------------------------|-----------------------------------|
| System edit should have stopped payment                       | 15                       | \$176,208.5              | \$1,518.3                             | \$1,499.3                         | \$1,537.2                         |
| Denial reason not supported in policy                         | 1                        | \$80.0                   | \$379.0                               | N/A                               | N/A                               |
| Other   | 1                        | \$25.0                   | \$35.7                                | N/A                               | N/A                               |
| Edit was turned off   | 5                        | \$534.3                  | \$35.5                                | \$35.5                            | \$35.5                            |
| <b>Total</b>  | <b>22</b>                | <b>\$176,847.7</b>       | <b>\$1,968.5</b>                      | <b>\$1,949.6</b>                  | <b>\$1,987.4</b>                  |
| Note: Details do not always sum to the total due to rounding. |                          |                          |                                       |                                   |                                   |

***Data Processing Payment Errors: Data Entry Error***

**Table S18. Specific Causes of "Data Entry Error" Error**

| Cause of Error  | Number of Payment Errors | Sample Dollars in Errors | Projected Dollars in Error (millions) | Lower Confidence Limit (millions) | Upper Confidence Limit (millions) |
|---|--------------------------|--------------------------|---------------------------------------|-----------------------------------|-----------------------------------|
| Other   | 1                        | \$902.4                  | \$339.7                               | N/A                               | N/A                               |
| Rates incorrectly entered into rate file in system            | 1                        | \$0.0                    | \$0.0                                 | N/A                               | N/A                               |
| <b>Total</b>  | <b>2</b>                 | <b>\$902.4</b>           | <b>\$339.7</b>                        | <b>\$339.7</b>                    | <b>\$339.7</b>                    |
| Note: Details do not always sum to the total due to rounding. |                          |                          |                                       |                                   |                                   |

***Medicaid FFS Data Processing Errors by Service Type***

**Table S19. Medicaid FFS Data Processing Error by Service Type**

| Category  | Number of Sample Payment Errors | Number of Claims Sampled | Sample Dollars in Errors | Sample Dollars Paid | Projected Dollars in Error (millions) | Projected Paid Amount (millions) | Error Rate | 95% CI          |
|---|---------------------------------|--------------------------|--------------------------|---------------------|---------------------------------------|----------------------------------|------------|-----------------|
| Nursing Facility, Intermediate Care Facilities  | 87                              | 1,982                    | \$302,773.2              | \$8,439,403.7       | \$2,201.8                             | \$64,890.1                       | 3.4%       | 1.8% - 5.0%     |
| Prescribed Drugs  | 84                              | 1,764                    | \$11,243.4               | \$930,381.4         | \$1,796.8                             | \$30,600.5                       | 5.9%       | 2.4% - 9.4%     |
| Personal Support Services   | 19                              | 1,255                    | \$3,519.2                | \$1,388,887.8       | \$1,667.2                             | \$35,652.3                       | 4.7%       | ( 1.5%) - 10.8% |
| Outpatient Hospital Services and Clinics  | 31                              | 1,319                    | \$5,457.9                | \$617,053.4         | \$978.6                               | \$13,228.8                       | 7.4%       | 2.5% - 12.3%    |
| Psychiatric, Mental Health, and Behavioral Health Services  | 31                              | 1,043                    | \$48,101.1               | \$2,325,498.4       | \$972.1                               | \$17,223.7                       | 5.6%       | 2.3% - 9.0%     |
| Denied Claims   | 4                               | 1,598                    | \$1,052.9                | \$0.0               | \$756.3                               | \$0.0                            | N/A        | N/A             |
| Inpatient and Outpatient Hospital   | 104                             | 2,215                    | \$295,977.9              | \$21,408,828.9      | \$560.7                               | \$40,648.5                       | 1.4%       | 0.9% - 1.9%     |
| Dental and Other Oral Surgery Services  | 31                              | 588                      | \$2,536.7                | \$62,938.6          | \$509.8                               | \$6,995.6                        | 7.3%       | 5.7% - 8.9%     |
| ICF for the Mentally Retarded and Group Homes   | 16                              | 387                      | \$234,321.4              | \$5,091,653.8       | \$326.2                               | \$10,809.8                       | 3.0%       | ( 1.2%) - 7.2%  |
| Home Health Services  | 13                              | 298                      | \$1,004.0                | \$96,904.6          | \$213.5                               | \$10,271.2                       | 2.1%       | 0.3% - 3.9%     |
| Crossover Claims  | 32                              | 731                      | \$7,945.4                | \$226,638.1         | \$197.5                               | \$7,691.8                        | 2.6%       | 0.7% - 4.4%     |
| Laboratory, X-ray and Imaging Services  | 53                              | 425                      | \$1,795.6                | \$13,590.7          | \$150.2                               | \$1,759.6                        | 8.5%       | 5.0% - 12.1%    |
| Durable Medical Equipment (DME) and Supplies, Prosthetic/Orthopedic Devices and Environmental Modifications | 31                              | 294                      | \$2,096.1                | \$118,562.8         | \$131.5                               | \$3,391.2                        | 3.9%       | 2.1% - 5.7%     |
| Capitated Care/Fixed Payments   | 39                              | 2,203                    | \$880,947.0              | \$607,029,288.7     | \$126.1                               | \$24,614.7                       | 0.5%       | 0.1% - 1.0%     |
| Habilitation and Waiver Programs, School Services   | 37                              | 1,925                    | \$9,051.8                | \$2,442,938.8       | \$124.0                               | \$28,308.2                       | 0.4%       | 0.2% - 0.7%     |

| Category  | Number of Sample Payment Errors | Number of Claims Sampled | Sample Dollars in Errors | Sample Dollars Paid    | Projected Dollars in Error (millions) | Projected Paid Amount (millions) | Error Rate  | 95% CI             |
|---|---------------------------------|--------------------------|--------------------------|------------------------|---------------------------------------|----------------------------------|-------------|--------------------|
| Physicians and Other Licensed Practitioner Services           | 13                              | 837                      | \$1,527.0                | \$151,392.0            | \$100.0                               | \$11,436.6                       | 0.9%        | 0.6% - 1.2%        |
| Therapies, Hearing and Rehabilitation Services                | 1                               | 82                       | \$42.6                   | \$5,287.9              | \$10.0                                | \$972.6                          | 1.0%        | 1.0% - 1.1%        |
| Transportation and Accommodations                             | 8                               | 273                      | \$323.9                  | \$57,887.5             | \$4.4                                 | \$3,757.3                        | 0.1%        | 0.0% - 0.2%        |
| Vision: Ophthalmology, Optometry and Optical Services         | 2                               | 88                       | \$25.0                   | \$3,017.6              | \$4.4                                 | \$456.6                          | 1.0%        | 0.9% - 1.1%        |
| Hospice Services  | 3                               | 70                       | \$0.3                    | \$201,852.2            | \$0.0                                 | \$1,773.7                        | 0.0%        | 0.0% - 0.0%        |
| <b>Total</b>  | <b>639</b>                      | <b>19,377</b>            | <b>\$1,809,742.3</b>     | <b>\$650,612,007.2</b> | <b>\$10,831.3</b>                     | <b>\$314,482.7</b>               | <b>3.4%</b> | <b>2.5% - 4.4%</b> |
| Note: Details do not always sum to the total due to rounding. |                                 |                          |                          |                        |                                       |                                  |             |                    |

## Medicaid Managed Care Component Payment Error Rate

Table S20. Medicaid Managed Care Data Processing Payment Error Rates by State

| State           | Number of Payment Errors | Sample Dollars in Errors | Sample Dollars Paid  | Error Rate  | 95% CI             |
|-----------------|--------------------------|--------------------------|----------------------|-------------|--------------------|
| <b>National</b> | <b>94</b>                | <b>\$28,242.4</b>        | <b>\$8,747,130.0</b> | <b>0.2%</b> | <b>0.1% - 0.4%</b> |
| ST1             | 3                        | \$9,080.0                | \$261,911.0          | 1.7%        | ( 0.2%) - 3.7%     |
| ST2             | 2                        | \$445.1                  | \$204,870.2          | 1.1%        | ( 0.4%) - 2.6%     |
| ST3             | 30                       | \$520.4                  | \$167,338.1          | 1.0%        | ( 0.4%) - 2.4%     |
| ST4             | 3                        | \$1,083.5                | \$127,937.5          | 0.9%        | ( 0.3%) - 2.2%     |
| ST5             | 2                        | \$1,187.5                | \$182,404.1          | 0.9%        | ( 0.3%) - 2.1%     |
| ST6             | 2                        | \$424.5                  | \$260,912.3          | 0.8%        | ( 0.3%) - 2.0%     |
| ST7             | 41                       | \$2,846.2                | \$225,462.4          | 0.8%        | ( 0.0%) - 1.6%     |
| ST8             | 1                        | \$263.6                  | \$292,633.1          | 0.5%        | ( 0.5%) - 1.6%     |
| ST9             | 1                        | \$5,579.0                | \$346,634.8          | 0.5%        | ( 0.5%) - 1.5%     |
| ST10            | 1                        | \$153.1                  | \$188,268.6          | 0.4%        | ( 0.4%) - 1.2%     |
| ST11            | 1                        | \$6,500.4                | \$302,004.3          | 0.4%        | ( 0.3%) - 1.1%     |
| ST12            | 5                        | \$6.9                    | \$162,983.7          | 0.1%        | 0.0% - 0.1%        |
| ST13            | 1                        | \$101.1                  | \$231,106.5          | 0.0%        | ( 0.0%) - 0.1%     |
| ST14            | 1                        | \$51.2                   | \$448,543.3          | 0.0%        | ( 0.0%) - 0.0%     |
| ST15            | 0                        | \$0.0                    | \$247,129.1          | 0.0%        | 0.0% - 0.0%        |
| ST16            | 0                        | \$0.0                    | \$211,846.8          | 0.0%        | 0.0% - 0.0%        |
| ST17            | 0                        | \$0.0                    | \$77,995.4           | 0.0%        | 0.0% - 0.0%        |
| ST18            | 0                        | \$0.0                    | \$308,745.2          | 0.0%        | 0.0% - 0.0%        |
| ST19            | 0                        | \$0.0                    | \$127,802.7          | 0.0%        | 0.0% - 0.0%        |
| ST20            | 0                        | \$0.0                    | \$416,213.6          | 0.0%        | 0.0% - 0.0%        |
| ST21            | 0                        | \$0.0                    | \$4,306.2            | 0.0%        | 0.0% - 0.0%        |
| ST22            | 0                        | \$0.0                    | \$107,281.4          | 0.0%        | 0.0% - 0.0%        |
| ST23            | 0                        | \$0.0                    | \$13,737.4           | 0.0%        | 0.0% - 0.0%        |
| ST24            | 0                        | \$0.0                    | \$173,478.4          | 0.0%        | 0.0% - 0.0%        |
| ST25            | 0                        | \$0.0                    | \$160,030.7          | 0.0%        | 0.0% - 0.0%        |
| ST26            | 0                        | \$0.0                    | \$511,274.9          | 0.0%        | 0.0% - 0.0%        |
| ST27            | 0                        | \$0.0                    | \$254,982.3          | 0.0%        | 0.0% - 0.0%        |
| ST28            | 0                        | \$0.0                    | \$181,065.3          | 0.0%        | 0.0% - 0.0%        |

| State   | Number of Payment Errors | Sample Dollars in Errors | Sample Dollars Paid | Error Rate | 95% CI      |
|---|--------------------------|--------------------------|---------------------|------------|-------------|
| ST29  | 0                        | \$0.0                    | \$178,188.7         | 0.0%       | 0.0% - 0.0% |
| ST30  | 0                        | \$0.0                    | \$292,069.1         | 0.0%       | 0.0% - 0.0% |
| ST31  | 0                        | \$0.0                    | \$343,200.7         | 0.0%       | 0.0% - 0.0% |
| ST32  | 0                        | \$0.0                    | \$350,638.3         | 0.0%       | 0.0% - 0.0% |
| ST33  | 0                        | \$0.0                    | \$285,157.5         | 0.0%       | 0.0% - 0.0% |
| ST34  | 0                        | \$0.0                    | \$193,604.8         | 0.0%       | 0.0% - 0.0% |
| ST35  | 0                        | \$0.0                    | \$212,644.6         | 0.0%       | 0.0% - 0.0% |
| ST36  | 0                        | \$0.0                    | \$226,576.6         | 0.0%       | 0.0% - 0.0% |
| ST37  | 0                        | \$0.0                    | \$160,487.7         | 0.0%       | 0.0% - 0.0% |
| ST38  | 0                        | \$0.0                    | \$118,472.3         | 0.0%       | 0.0% - 0.0% |
| ST39  | 0                        | \$0.0                    | \$187,190.5         | 0.0%       | 0.0% - 0.0% |
| Note: Details do not always sum to the total due to rounding. |                          |                          |                     |            |             |

### *Medicaid Managed Care Payment Errors by Type of Error*

**Table S21. Summary of Medicaid Managed Care Data Processing Projected Dollars by Type of Error**

| Error Type  | Number of Payment Errors | Sample Dollars in Errors | Sample Dollars Paid  | Projected Dollars in Error (millions) | Lower Confidence Limit (millions) | Upper Confidence Limit (millions) |
|---|--------------------------|--------------------------|----------------------|---------------------------------------|-----------------------------------|-----------------------------------|
| Non-covered Service   | 16                       | \$12,126.3               | \$12,126.3           | \$239.5                               | \$85.5                            | \$393.5                           |
| Duplicate Item  | 3                        | \$15,015.7               | \$15,015.7           | \$18.5                                | -\$2.7                            | \$39.8                            |
| MC Payment Error  | 68                       | \$1,014.7                | \$50,896.8           | \$4.0                                 | -\$0.4                            | \$8.4                             |
| Pricing Error   | 6                        | \$58.1                   | \$3,202.7            | \$3.1                                 | \$1.3                             | \$4.9                             |
| Rate Cell Error   | 1                        | \$27.6                   | \$514.1              | \$0.1                                 | N/A                               | N/A                               |
| <b>Total</b>  | <b>94</b>                | <b>\$28,242.4</b>        | <b>\$8,747,130.0</b> | <b>\$265.2</b>                        | <b>\$109.6</b>                    | <b>\$420.8</b>                    |
| Note: Details do not always sum to the total due to rounding. |                          |                          |                      |                                       |                                   |                                   |

### *Medicaid Managed Care Data Processing Payment Errors*

**Table S22. Summary of Medicaid Managed Care Data Processing Overpayment Errors**

| Error Type  | Number of Payment Errors | Sample Dollars in Errors | Sample Dollars Paid  | Projected Dollars in Error (millions) | Lower Confidence Limit (millions) | Upper Confidence Limit (millions) |
|---|--------------------------|--------------------------|----------------------|---------------------------------------|-----------------------------------|-----------------------------------|
| Non-covered Service   | 16                       | \$12,126.3               | \$12,126.3           | \$239.5                               | \$85.5                            | \$393.5                           |
| Duplicate Item  | 3                        | \$15,015.7               | \$15,015.7           | \$18.5                                | -\$2.7                            | \$39.8                            |
| MC Payment Error  | 12                       | \$211.1                  | \$50,896.8           | \$2.9                                 | -\$1.5                            | \$7.3                             |
| Pricing Error   | 1                        | \$51.2                   | \$3,202.7            | \$0.2                                 | N/A                               | N/A                               |
| Rate Cell Error   | 0                        | \$0.0                    | \$514.1              | \$0.0                                 | N/A                               | N/A                               |
| <b>Total</b>  | <b>32</b>                | <b>\$27,404.2</b>        | <b>\$8,747,130.0</b> | <b>\$261.1</b>                        | <b>\$105.6</b>                    | <b>\$416.7</b>                    |
| Note: Details do not always sum to the total due to rounding. |                          |                          |                      |                                       |                                   |                                   |

**Table S23. Summary of Medicaid Managed Care Data Processing Underpayment Errors**

| Error Type  | Number of Payment Errors | Sample Dollars in Errors | Sample Dollars Paid  | Projected Dollars in Error (millions) | Lower Confidence Limit (millions) | Upper Confidence Limit (millions) |
|---|--------------------------|--------------------------|----------------------|---------------------------------------|-----------------------------------|-----------------------------------|
| Pricing Error   | 5                        | \$6.9                    | \$3,202.7            | \$2.9                                 | \$1.1                             | \$4.7                             |
| MC Payment Error  | 56                       | \$803.7                  | \$50,896.8           | \$1.1                                 | \$0.9                             | \$1.3                             |
| Rate Cell Error   | 1                        | \$27.6                   | \$514.1              | \$0.1                                 | N/A                               | N/A                               |
| Duplicate Item  | 0                        | \$0.0                    | \$15,015.7           | \$0.0                                 | \$0.0                             | \$0.0                             |
| Non-covered Service   | 0                        | \$0.0                    | \$12,126.3           | \$0.0                                 | \$0.0                             | \$0.0                             |
| <b>Total</b>  | <b>62</b>                | <b>\$838.1</b>           | <b>\$8,747,130.0</b> | <b>\$4.1</b>                          | <b>\$2.3</b>                      | <b>\$5.8</b>                      |
| Note: Details do not always sum to the total due to rounding. |                          |                          |                      |                                       |                                   |                                   |



***Data Processing Payment Errors: Non-covered Service***

**Table S24. Specific Causes of "Non-covered Service" Error**

| Cause of Error  | Number of Payment Errors | Sample Dollars in Errors | Projected Dollars in Error (millions) | Lower Confidence Limit (millions) | Upper Confidence Limit (millions) |
|---|--------------------------|--------------------------|---------------------------------------|-----------------------------------|-----------------------------------|
| Recipient not eligible for applicable program on DOS          | 16                       | \$12,126.3               | \$239.5                               | \$239.5                           | \$239.5                           |
| <b>Total</b>  | <b>16</b>                | <b>\$12,126.3</b>        | <b>\$239.5</b>                        | <b>\$239.5</b>                    | <b>\$239.5</b>                    |
| Note: Details do not always sum to the total due to rounding. |                          |                          |                                       |                                   |                                   |

***Data Processing Payment Errors: Duplicate Item***

**Table S25. Specific Causes of "Duplicate Item" Error**

| Cause of Error  | Number of Payment Errors | Sample Dollars in Errors | Projected Dollars in Error (millions) | Lower Confidence Limit (millions) | Upper Confidence Limit (millions) |
|---|--------------------------|--------------------------|---------------------------------------|-----------------------------------|-----------------------------------|
| Sampled claim is a duplicate of previously paid claim         | 3                        | \$15,015.7               | \$18.5                                | \$18.5                            | \$18.5                            |
| <b>Total</b>  | <b>3</b>                 | <b>\$15,015.7</b>        | <b>\$18.5</b>                         | <b>\$18.5</b>                     | <b>\$18.5</b>                     |
| Note: Details do not always sum to the total due to rounding. |                          |                          |                                       |                                   |                                   |

***Data Processing Payment Errors: MC Payment Error***

**Table S26. Specific Causes of "MC Payment Error" Error**

| Cause of Error  | Number of Payment Errors | Sample Dollars in Errors | Projected Dollars in Error (millions) | Lower Confidence Limit (millions) | Upper Confidence Limit (millions) |
|---|--------------------------|--------------------------|---------------------------------------|-----------------------------------|-----------------------------------|
| Rate programming error  | 67                       | \$1,014.3                | \$4.0                                 | \$4.0                             | \$4.0                             |
| Other   | 1                        | \$0.4                    | \$0.0                                 | N/A                               | N/A                               |
| <b>Total</b>  | <b>68</b>                | <b>\$1,014.7</b>         | <b>\$4.0</b>                          | <b>\$4.0</b>                      | <b>\$4.0</b>                      |
| Note: Details do not always sum to the total due to rounding. |                          |                          |                                       |                                   |                                   |

## Medicaid Eligibility Component Payment Error Rate

Table S27. Medicaid Eligibility Active Cases Payment Error Rates by State

| State           | Number of Payment Errors | Sample Dollars in Errors | Sample Dollars Paid   | Error Rate  | 95% CI             |
|-----------------|--------------------------|--------------------------|-----------------------|-------------|--------------------|
| <b>National</b> | <b>1,054</b>             | <b>\$419,948.2</b>       | <b>\$13,922,896.8</b> | <b>3.1%</b> | <b>2.2% - 4.0%</b> |
| ST1             | 112                      | \$56,960.8               | \$440,290.8           | 12.8%       | 2.7% - 22.8%       |
| ST2             | 12                       | \$12,737.0               | \$171,895.0           | 8.9%        | ( 6.7%) - 24.4%    |
| ST3             | 32                       | \$5,017.2                | \$56,741.5            | 8.8%        | ( 2.4%) - 20.0%    |
| ST4             | 89                       | \$19,253.3               | \$229,690.1           | 8.3%        | 4.2% - 12.5%       |
| ST5             | 52                       | \$22,492.9               | \$296,707.5           | 7.5%        | 0.8% - 14.1%       |
| ST6             | 29                       | \$42,401.0               | \$633,160.0           | 6.7%        | 1.0% - 12.4%       |
| ST7             | 64                       | \$27,415.9               | \$956,823.0           | 6.0%        | 2.1% - 10.0%       |
| ST8             | 20                       | \$11,304.3               | \$205,424.8           | 5.7%        | 0.6% - 10.9%       |
| ST9             | 34                       | \$25,118.2               | \$402,989.0           | 5.6%        | ( 3.0%) - 14.2%    |
| ST10            | 11                       | \$3,584.7                | \$75,637.4            | 4.7%        | 1.3% - 8.2%        |
| ST11            | 35                       | \$17,878.2               | \$387,559.9           | 4.6%        | ( 0.0%) - 9.3%     |
| ST12            | 31                       | \$14,689.0               | \$325,181.0           | 4.6%        | 0.6% - 8.5%        |
| ST13            | 34                       | \$19,794.0               | \$529,775.0           | 4.3%        | ( 0.5%) - 9.2%     |
| ST14            | 54                       | \$27,025.7               | \$697,775.6           | 3.9%        | 1.6% - 6.3%        |
| ST15            | 24                       | \$12,446.5               | \$341,377.1           | 3.7%        | ( 0.3%) - 7.8%     |
| ST16            | 14                       | \$6,466.0                | \$215,768.0           | 3.0%        | ( 0.0%) - 6.1%     |
| ST17            | 25                       | \$15,985.9               | \$547,835.6           | 2.9%        | 0.5% - 5.4%        |
| ST18            | 51                       | \$10,552.0               | \$371,706.0           | 2.8%        | 1.7% - 4.0%        |
| ST19            | 54                       | \$11,792.0               | \$513,199.0           | 2.4%        | 0.9% - 3.9%        |
| ST20            | 12                       | \$1,801.9                | \$89,326.5            | 2.3%        | ( 1.0%) - 5.6%     |
| ST21            | 15                       | \$2,306.3                | \$116,090.5           | 2.2%        | 0.3% - 4.2%        |
| ST22            | 29                       | \$9,193.5                | \$421,965.8           | 2.2%        | ( 0.3%) - 4.6%     |
| ST23            | 48                       | \$10,978.0               | \$267,886.0           | 2.1%        | 0.7% - 3.5%        |
| ST24            | 13                       | \$959.4                  | \$48,901.2            | 2.0%        | ( 0.8%) - 4.8%     |
| ST25            | 8                        | \$1,467.0                | \$108,730.0           | 1.9%        | ( 0.3%) - 4.1%     |
| ST26            | 10                       | \$2,563.0                | \$139,670.0           | 1.8%        | 0.3% - 3.4%        |
| ST27            | 10                       | \$4,128.0                | \$228,999.0           | 1.7%        | 0.0% - 3.4%        |
| ST28            | 15                       | \$702.0                  | \$48,861.2            | 1.4%        | ( 1.0%) - 3.8%     |

| State | Number of Payment Errors | Sample Dollars in Errors | Sample Dollars Paid | Error Rate | 95% CI         |
|-------|--------------------------|--------------------------|---------------------|------------|----------------|
| ST29  | 19                       | \$2,940.1                | \$304,894.5         | 1.0%       | 0.3% - 1.6%    |
| ST30  | 10                       | \$1,302.1                | \$176,749.8         | 0.7%       | 0.1% - 1.4%    |
| ST31  | 6                        | \$647.2                  | \$88,040.7          | 0.7%       | ( 0.2%) - 1.6% |
| ST32  | 22                       | \$3,670.0                | \$167,564.0         | 0.7%       | ( 0.3%) - 1.6% |
| ST33  | 4                        | \$3,006.0                | \$934,443.0         | 0.5%       | ( 0.5%) - 1.5% |
| ST34  | 6                        | \$510.0                  | \$103,859.0         | 0.5%       | ( 0.1%) - 1.1% |
| ST35  | 6                        | \$878.0                  | \$185,714.0         | 0.5%       | ( 0.2%) - 1.2% |
| ST36  | 15                       | \$5,607.5                | \$422,912.2         | 0.5%       | ( 0.0%) - 0.9% |
| ST37  | 11                       | \$1,952.0                | \$487,811.0         | 0.4%       | ( 0.1%) - 0.9% |
| ST38  | 1                        | \$115.4                  | \$37,683.0          | 0.3%       | ( 0.3%) - 0.9% |
| ST39  | 2                        | \$228.4                  | \$83,846.3          | 0.3%       | ( 0.1%) - 0.7% |
| ST40  | 4                        | \$194.0                  | \$165,468.0         | 0.1%       | ( 0.1%) - 0.3% |
| ST41  | 2                        | \$1,172.0                | \$171,740.0         | 0.1%       | ( 0.1%) - 0.2% |
| ST42  | 2                        | \$115.4                  | \$160,958.1         | 0.1%       | ( 0.1%) - 0.2% |
| ST43  | 1                        | \$200.0                  | \$293,459.5         | 0.1%       | ( 0.1%) - 0.2% |
| ST44  | 1                        | \$354.1                  | \$90,400.9          | 0.0%       | ( 0.0%) - 0.1% |
| ST45  | 1                        | \$14.5                   | \$59,133.5          | 0.0%       | ( 0.0%) - 0.1% |
| ST46  | 1                        | \$24.9                   | \$95,352.4          | 0.0%       | ( 0.0%) - 0.0% |
| ST47  | 1                        | \$3.0                    | \$239,974.1         | 0.0%       | ( 0.0%) - 0.0% |
| ST48  | 0                        | \$0.0                    | \$107,047.0         | 0.0%       | 0.0% - 0.0%    |
| ST49  | 1                        | \$0.0                    | \$240,689.9         | 0.0%       | 0.0% - 0.0%    |
| ST50  | 0                        | \$0.0                    | \$155,732.0         | 0.0%       | 0.0% - 0.0%    |
| ST51  | 1                        | \$0.0                    | \$279,457.4         | 0.0%       | 0.0% - 0.0%    |

Note: Details do not always sum to the total due to rounding.

**Medicaid Eligibility Payment Errors by Type of Error**

**Table S28. Summary of Medicaid Eligibility Active Cases Projected Dollars by Type of Error**

| Error Type  | Number of Payment Errors | Sample Dollars in Errors | Projected Dollars in Error (millions) | Lower Confidence Limit (millions) | Upper Confidence Limit (millions) |
|---|--------------------------|--------------------------|---------------------------------------|-----------------------------------|-----------------------------------|
| Not Eligible  | 639                      | \$290,931.6              | \$8,362.6                             | \$6,018.6                         | \$10,706.6                        |
| Undetermined  | 183                      | \$79,043.0               | \$2,439.1                             | \$1,033.8                         | \$3,844.5                         |
| Liability Understated   | 138                      | \$29,913.3               | \$1,969.8                             | \$649.1                           | \$3,290.6                         |
| Liability Overstated  | 45                       | \$5,581.7                | \$403.8                               | \$112.3                           | \$695.4                           |
| Eligible with Ineligible Services                                     | 35                       | \$13,652.8               | \$395.2                               | \$201.5                           | \$588.9                           |
| Managed Care Error, Ineligible for Managed Care                       | 5                        | \$544.2                  | \$22.6                                | -\$9.9                            | \$55.0                            |
| Managed Care Error, Eligible for Managed Care but Improperly Enrolled | 9                        | \$281.5                  | \$6.1                                 | -\$2.4                            | \$14.6                            |
| <b>Total</b>  | <b>1,054</b>             | <b>\$419,948.2</b>       | <b>\$13,599.3</b>                     | <b>\$10,548.6</b>                 | <b>\$16,650.0</b>                 |
| Note: Details do not always sum to the total due to rounding.         |                          |                          |                                       |                                   |                                   |

**Table S29. Summary of Medicaid Eligibility Active Cases Overpayment Errors**

| Error Type   | Number of Payment Errors | Sample Dollars in Errors | Projected Dollars in Error (millions) | Lower Confidence Limit (millions) | Upper Confidence Limit (millions) |
|--------------|--------------------------|--------------------------|---------------------------------------|-----------------------------------|-----------------------------------|
| Not Eligible | 639                      | \$290,931.6              | \$8,362.6                             | \$6,018.6                         | \$10,706.6                        |
| Undetermined | 183                      | \$79,043.0               | \$2,439.1                             | \$1,033.8                         | \$3,844.5                         |

|   |              |                    |                   |                   |                   |
|---|--------------|--------------------|-------------------|-------------------|-------------------|
| Liability Understated   | 138          | \$29,913.3         | \$1,969.8         | \$649.1           | \$3,290.6         |
| Eligible with Ineligible Services                                     | 35           | \$13,652.8         | \$395.2           | \$201.5           | \$588.9           |
| Managed Care Error, Ineligible for Managed Care                       | 5            | \$544.2            | \$22.6            | -\$9.9            | \$55.0            |
| Managed Care Error, Eligible for Managed Care but Improperly Enrolled | 9            | \$281.5            | \$6.1             | -\$2.4            | \$14.6            |
| Liability Overstated  | 0            | \$0.0              | \$0.0             | \$0.0             | \$0.0             |
| <b>Total</b>  | <b>1,009</b> | <b>\$414,366.4</b> | <b>\$13,195.4</b> | <b>\$10,158.6</b> | <b>\$16,232.3</b> |
| Note: Details do not always sum to the total due to rounding.         |              |                    |                   |                   |                   |

**Table S30. Summary of Medicaid Eligibility Active Cases Underpayment Errors**

| Error Type  | Number of Payment Errors | Sample Dollars in Errors | Projected Dollars in Error (millions) | Lower Confidence Limit (millions) | Upper Confidence Limit (millions) |
|---|--------------------------|--------------------------|---------------------------------------|-----------------------------------|-----------------------------------|
| Liability Overstated  | 45                       | \$5,581.7                | \$403.8                               | \$112.3                           | \$695.4                           |
| Eligible with Ineligible Services                                     | 0                        | \$0.0                    | \$0.0                                 | \$0.0                             | \$0.0                             |
| Liability Understated   | 0                        | \$0.0                    | \$0.0                                 | \$0.0                             | \$0.0                             |
| Managed Care Error, Eligible for Managed Care but Improperly Enrolled | 0                        | \$0.0                    | \$0.0                                 | \$0.0                             | \$0.0                             |
| Managed Care Error, Ineligible for Managed Care                       | 0                        | \$0.0                    | \$0.0                                 | \$0.0                             | \$0.0                             |
| Not Eligible  | 0                        | \$0.0                    | \$0.0                                 | \$0.0                             | \$0.0                             |
| Undetermined  | 0                        | \$0.0                    | \$0.0                                 | \$0.0                             | \$0.0                             |
| <b>Total</b>  | <b>45</b>                | <b>\$5,581.7</b>         | <b>\$403.8</b>                        | <b>\$112.3</b>                    | <b>\$695.4</b>                    |
| Note: Details do not always sum to the total due to rounding.         |                          |                          |                                       |                                   |                                   |

**Table S31. Summary of Medicaid Eligibility Negative Cases**

| Error Type  | Number of Sample Cases | Percentage of Sample Cases |
|---|------------------------|----------------------------|
| Correct   | 11,194                 | 92.8%                      |
| Improper Termination  | 651                    | 5.4%                       |
| Improper Denial   | 217                    | 1.8%                       |
| <b>Total</b>  | <b>12,062</b>          | <b>100.0%</b>              |
| Note: Details do not always sum to the total due to rounding. |                        |                            |

## Appendix 3: CHIP Trending for Cycle-Specific and National Rolling Error Rates

**Table B1. Inception to Date Cycle-Specific CHIP Improper Payment Component Error Rates<sup>2</sup>**

| Year  | FFS  | Managed Care | Eligibility | Overall*    |
|---|------|--------------|-------------|-------------|
| 2012  | 6.9% | 0.1%         | 5.7%        | <b>8.2%</b> |
| 2013  | 6.1% | 0.5%         | 4.4%        | <b>6.8%</b> |
| 2014  | 6.2% | 0.0%         | 2.6%        | <b>4.8%</b> |
| *The overall estimate is comprised of the weighted sum of the FFS and managed care components, plus the eligibility component, minus a small adjustment to account for the overlap between the claims and eligibility review functions. From 2012-2013, the cycle-specific rate is calculated using data from the 17 States sampled and projected to the national level. For 2014, the cycle-specific rate represents only the 17 States sampled. |      |              |             |             |

**Table B2. National Rolling CHIP Improper Payment Component Error Rates**

| Year   | FFS  | Managed Care | Eligibility | Overall*    |
|--|------|--------------|-------------|-------------|
| 2013 Rolling Rates   | 5.7% | 0.2%         | 5.1%        | <b>7.1%</b> |
| 2014 Rolling Rates   | 6.2% | 0.2%         | 4.2%        | <b>6.5%</b> |
| *The overall estimate is comprised of the weighted sum of the FFS and managed care components, plus the eligibility component, minus a small adjustment to account for the overlap between the claims and eligibility review functions. It is important to note that the 2013 rolling rate for CHIP represents 2 cycles since only 34 states had been sampled at the time. |      |              |             |             |

## Appendix 4: CHIP Supplemental Information

CMS reported a rolling error rate for CHIP in 2014 based on the 51 states reviewed from 2012-2014. Unless otherwise noted, all tables and figures in Appendix 4 are based on the rolling rate.

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## CHIP Overpayments and Underpayments

**Table T1. Summary of CHIP Projected Improper Payments**

| Category  | Number of Sample Payment Errors | Number of Claims Sampled | Sample Dollars in Errors | Sample Dollars Paid   | Projected Dollars in Error (millions) | Projected Paid Amount (millions) | Error Rate  | 95% CI             |
|---|---------------------------------|--------------------------|--------------------------|-----------------------|---------------------------------------|----------------------------------|-------------|--------------------|
| FFS   | 1,627                           | 23,371                   | \$1,280,911.1            | \$38,095,741.4        | \$313.1                               | \$5,024.8                        | 6.2%        | 5.4% - 7.1%        |
| FFS Medical Review  | 705                             | 23,371                   | \$401,863.1              | \$38,095,741.4        | \$159.3                               | \$5,024.8                        | 3.2%        | 2.6% - 3.8%        |
| FFS Data Processing   | 990                             | 23,371                   | \$926,193.4              | \$38,095,741.4        | \$171.2                               | \$5,024.8                        | 3.4%        | 2.8% - 4.0%        |
| Managed Care  | 121                             | 10,166                   | \$4,176.2                | \$1,959,720.3         | \$13.7                                | \$8,595.0                        | 0.2%        | 0.0% - 0.3%        |
| Eligibility   | 1,841                           | 25,358                   | \$240,621.1              | \$5,617,602.3         | \$566.8                               | \$13,619.7                       | 4.2%        | 3.6% - 4.7%        |
| <b>Total</b>  | <b>3,589</b>                    | <b>58,895</b>            | <b>\$1,525,708.5</b>     | <b>\$45,673,064.1</b> | <b>\$880.1</b>                        | <b>\$13,619.7</b>                | <b>6.5%</b> | <b>5.8% - 7.1%</b> |
| Note: Details do not always sum to the total due to rounding. |                                 |                          |                          |                       |                                       |                                  |             |                    |

**Table T2. Summary of Projected CHIP Overpayments**

| Category  | Number of Sample Payment Errors | Number of Claims Sampled | Sample Dollars in Errors | Sample Dollars Paid   | Projected Dollars in Error (millions) | Projected Paid Amount (millions) | Error Rate  | 95% CI             |
|---|---------------------------------|--------------------------|--------------------------|-----------------------|---------------------------------------|----------------------------------|-------------|--------------------|
| FFS   | 1,529                           | 23,371                   | \$1,233,982.8            | \$38,095,741.4        | \$305.3                               | \$5,024.8                        | 6.1%        | 5.3% - 6.9%        |
| FFS Medical Review  | 697                             | 23,371                   | \$369,457.0              | \$38,095,741.4        | \$158.2                               | \$5,024.8                        | 3.1%        | 2.5% - 3.8%        |
| FFS Data Processing   | 892                             | 23,371                   | \$911,333.4              | \$38,095,741.4        | \$163.5                               | \$5,024.8                        | 3.3%        | 2.7% - 3.8%        |
| Managed Care  | 16                              | 10,166                   | \$4,126.7                | \$1,959,720.3         | \$13.7                                | \$8,595.0                        | 0.2%        | 0.0% - 0.3%        |
| Eligibility   | 1,753                           | 25,358                   | \$238,406.1              | \$5,617,602.3         | \$562.0                               | \$13,619.7                       | 4.1%        | 3.6% - 4.7%        |
| <b>Total</b>  | <b>3,298</b>                    | <b>58,895</b>            | <b>\$1,476,515.7</b>     | <b>\$45,673,064.1</b> | <b>\$867.8</b>                        | <b>\$13,619.7</b>                | <b>6.4%</b> | <b>5.8% - 7.0%</b> |
| Note: Details do not always sum to the total due to rounding. |                                 |                          |                          |                       |                                       |                                  |             |                    |

**Table T3. Summary of Projected CHIP Underpayments**

| Category            | Number of Sample Payment Errors | Number of Claims Sampled | Sample Dollars in Errors | Sample Dollars Paid   | Projected Dollars in Error (millions) | Projected Paid Amount (millions) | Error Rate  | 95% CI             |
|---------------------|---------------------------------|--------------------------|--------------------------|-----------------------|---------------------------------------|----------------------------------|-------------|--------------------|
| FFS                 | 106                             | 23,371                   | \$47,266.1               | \$38,095,741.4        | \$8.8                                 | \$5,024.8                        | 0.2%        | 0.0% - 0.3%        |
| FFS Medical Review  | 8                               | 23,371                   | \$32,406.1               | \$38,095,741.4        | \$1.1                                 | \$5,024.8                        | 0.0%        | ( 0.0%) - 0.0%     |
| FFS Data Processing | 98                              | 23,371                   | \$14,860.0               | \$38,095,741.4        | \$7.7                                 | \$5,024.8                        | 0.2%        | 0.0% - 0.3%        |
| Managed Care        | 105                             | 10,166                   | \$49.5                   | \$1,959,720.3         | \$0.0                                 | \$8,595.0                        | 0.0%        | ( 0.0%) - 0.0%     |
| Eligibility         | 88                              | 25,358                   | \$2,215.0                | \$5,617,602.3         | \$4.9                                 | \$13,619.7                       | 0.0%        | 0.0% - 0.1%        |
| <b>Total</b>        | <b>299</b>                      | <b>58,895</b>            | <b>\$49,530.6</b>        | <b>\$45,673,064.1</b> | <b>\$13.7</b>                         | <b>\$13,619.7</b>                | <b>0.1%</b> | <b>0.0% - 0.2%</b> |

Note: Details do not always sum to the total due to rounding.

### CHIP FFS Component Payment Error Rate

**Table T4. CHIP FFS Medical Review and Data Processing Payment Error Rates by State**

| State           | Medical Review          |                         |             | Data Processing         |                         |             | Sample Paid Amount    | FFS Error Rate |
|-----------------|-------------------------|-------------------------|-------------|-------------------------|-------------------------|-------------|-----------------------|----------------|
|                 | Number of Sample Errors | Sample Dollars in Error | Error Rate  | Number of Sample Errors | Sample Dollars in Error | Error Rate  |                       |                |
| <b>National</b> | <b>705</b>              | <b>\$401,863.1</b>      | <b>3.2%</b> | <b>990</b>              | <b>\$926,193.4</b>      | <b>3.4%</b> | <b>\$38,095,741.4</b> | <b>6.2%</b>    |
| ST1             | 105                     | \$160,674.0             | 22.7%       | 77                      | \$84,295.2              | 17.6%       | \$1,764,240.2         | 34.8%          |
| ST2             | 41                      | \$2,945.1               | 13.1%       | 18                      | \$59,038.0              | 5.3%        | \$382,040.2           | 16.9%          |
| ST3             | 25                      | \$32,605.0              | 10.2%       | 66                      | \$105,941.7             | 6.7%        | \$481,681.4           | 16.8%          |
| ST4             | 9                       | \$3,866.3               | 2.8%        | 59                      | \$253,882.9             | 12.0%       | \$974,013.1           | 14.4%          |
| ST5             | 63                      | \$30,959.1              | 6.4%        | 46                      | \$21,236.1              | 7.1%        | \$1,811,990.9         | 11.7%          |
| ST6             | 49                      | \$4,883.4               | 10.0%       | 4                       | \$1,082.9               | 0.3%        | \$275,669.6           | 10.3%          |
| ST7             | 13                      | \$617.2                 | 1.2%        | 110                     | \$45,812.7              | 9.4%        | \$271,458.8           | 10.2%          |
| ST8             | 17                      | \$1,605.2               | 3.2%        | 25                      | \$5,926.2               | 4.5%        | \$202,315.2           | 7.8%           |
| ST9             | 24                      | \$12,855.3              | 4.1%        | 19                      | \$49,498.6              | 3.5%        | \$3,125,437.3         | 7.4%           |
| ST10            | 11                      | \$956.0                 | 3.9%        | 71                      | \$20,576.1              | 3.4%        | \$176,824.9           | 6.8%           |

| State | Medical Review          |                         |            | Data Processing         |                         |            | Sample Paid Amount | FFS Error Rate |
|-------|-------------------------|-------------------------|------------|-------------------------|-------------------------|------------|--------------------|----------------|
|       | Number of Sample Errors | Sample Dollars in Error | Error Rate | Number of Sample Errors | Sample Dollars in Error | Error Rate |                    |                |
| ST11  | 2                       | \$3.0                   | 0.1%       | 35                      | \$24,578.7              | 6.1%       | \$463,412.6        | 6.2%           |
| ST12  | 14                      | \$960.8                 | 2.2%       | 26                      | \$18,095.0              | 4.0%       | \$625,489.2        | 6.0%           |
| ST13  | 16                      | \$230.8                 | 0.5%       | 22                      | \$50,990.8              | 5.0%       | \$995,600.1        | 5.5%           |
| ST14  | 19                      | \$10,356.5              | 5.2%       | 17                      | \$7,739.4               | 0.1%       | \$563,988.7        | 5.3%           |
| ST15  | 7                       | \$4,221.6               | 0.9%       | 38                      | \$36,526.9              | 4.5%       | \$194,127.8        | 5.2%           |
| ST16  | 19                      | \$3,948.2               | 5.1%       | 0                       | \$0.0                   | 0.0%       | \$307,475.3        | 5.1%           |
| ST17  | 2                       | \$124.0                 | 0.0%       | 12                      | \$12,851.3              | 4.5%       | \$418,529.4        | 4.5%           |
| ST18  | 18                      | \$2,811.1               | 2.5%       | 31                      | \$19,239.3              | 2.0%       | \$182,546.6        | 4.5%           |
| ST19  | 22                      | \$3,361.9               | 4.2%       | 5                       | \$626.5                 | 0.0%       | \$241,316.1        | 4.2%           |
| ST20  | 14                      | \$1,310.5               | 2.3%       | 17                      | \$16,980.8              | 1.9%       | \$289,014.9        | 4.0%           |
| ST21  | 16                      | \$26,458.8              | 3.4%       | 0                       | \$0.0                   | 0.0%       | \$517,887.1        | 3.4%           |
| ST22  | 14                      | \$946.6                 | 1.9%       | 35                      | \$11,411.4              | 1.5%       | \$346,412.8        | 3.3%           |
| ST23  | 17                      | \$10,292.2              | 2.8%       | 3                       | \$194.1                 | 0.4%       | \$917,090.4        | 3.2%           |
| ST24  | 6                       | \$5,403.3               | 2.2%       | 23                      | \$13,781.7              | 0.8%       | \$617,443.2        | 3.0%           |
| ST25  | 2                       | \$74.3                  | 0.3%       | 24                      | \$26,694.5              | 2.7%       | \$477,932.0        | 3.0%           |
| ST26  | 22                      | \$15,587.1              | 2.6%       | 15                      | \$191.9                 | 0.1%       | \$2,561,843.7      | 2.8%           |
| ST27  | 8                       | \$5,037.7               | 1.2%       | 15                      | \$19,788.8              | 1.7%       | \$1,324,845.1      | 2.7%           |
| ST28  | 16                      | \$7,501.8               | 2.4%       | 3                       | \$48.9                  | 0.3%       | \$133,015.1        | 2.7%           |
| ST29  | 9                       | \$691.6                 | 2.7%       | 0                       | \$0.0                   | 0.0%       | \$264,447.5        | 2.7%           |
| ST30  | 18                      | \$11,365.2              | 2.7%       | 0                       | \$0.0                   | 0.0%       | \$946,856.5        | 2.7%           |
| ST31  | 11                      | \$4,758.9               | 1.9%       | 6                       | \$431.8                 | 0.7%       | \$109,245.7        | 2.6%           |
| ST32  | 7                       | \$888.6                 | 2.2%       | 2                       | \$41.9                  | 0.3%       | \$494,140.1        | 2.5%           |
| ST33  | 3                       | \$299.3                 | 1.1%       | 12                      | \$2,461.4               | 0.9%       | \$648,537.9        | 2.0%           |
| ST34  | 9                       | \$1,680.8               | 1.6%       | 4                       | \$439.3                 | 0.3%       | \$457,730.3        | 1.7%           |
| ST35  | 12                      | \$1,141.1               | 0.6%       | 43                      | \$5,758.0               | 1.0%       | \$317,030.5        | 1.6%           |
| ST36  | 5                       | \$1,014.9               | 1.3%       | 15                      | \$575.8                 | 0.1%       | \$174,969.4        | 1.4%           |
| ST37  | 3                       | \$127.7                 | 0.3%       | 9                       | \$5,502.1               | 1.3%       | \$286,374.7        | 1.3%           |
| ST38  | 8                       | \$4,900.8               | 1.2%       | 2                       | \$0.7                   | 0.0%       | \$775,647.0        | 1.2%           |
| ST39  | 6                       | \$10,941.4              | 0.7%       | 1                       | \$65.6                  | 0.2%       | \$985,111.9        | 0.9%           |

| State | Medical Review          |                         |            | Data Processing         |                         |            | Sample Paid Amount | FFS Error Rate |
|-------|-------------------------|-------------------------|------------|-------------------------|-------------------------|------------|--------------------|----------------|
|       | Number of Sample Errors | Sample Dollars in Error | Error Rate | Number of Sample Errors | Sample Dollars in Error | Error Rate |                    |                |
| ST40  | 4                       | \$10,139.6              | 0.6%       | 3                       | \$228.3                 | 0.2%       | \$975,609.6        | 0.8%           |
| ST41  | 4                       | \$1,631.3               | 0.6%       | 2                       | \$0.0                   | 0.0%       | \$1,312,781.1      | 0.6%           |
| ST42  | 1                       | \$33.4                  | 0.1%       | 5                       | \$206.2                 | 0.4%       | \$626,208.6        | 0.5%           |
| ST43  | 1                       | \$108.0                 | 0.2%       | 44                      | \$51.6                  | 0.1%       | \$527,207.4        | 0.3%           |
| ST44  | 9                       | \$1,407.0               | 0.2%       | 9                       | \$2,412.8               | 0.1%       | \$157,297.6        | 0.3%           |
| ST45  | 3                       | \$47.5                  | 0.2%       | 6                       | \$202.8                 | 0.1%       | \$376,640.1        | 0.3%           |
| ST46  | 1                       | \$89.1                  | 0.0%       | 11                      | \$785.0                 | 0.2%       | \$8,016,264.0      | 0.2%           |

***CHIP FFS Payment Errors by Type of Error***

**Table T5. Summary of CHIP FFS Projected Dollars by Type of Error**

| Error Type                         | Number of Payment Errors | Sample Dollars in Errors | Sample Dollars Paid | Projected Dollars in Error (millions) | Lower Confidence Limit (millions) | Upper Confidence Limit (millions) |
|------------------------------------|--------------------------|--------------------------|---------------------|---------------------------------------|-----------------------------------|-----------------------------------|
| Non-covered Service                | 524                      | \$628,108.1              | \$628,519.4         | \$121.2                               | \$99.6                            | \$142.8                           |
| Policy Violation                   | 164                      | \$77,771.3               | \$77,723.5          | \$65.7                                | \$42.6                            | \$88.8                            |
| Insufficient Documentation         | 232                      | \$71,898.5               | \$71,898.5          | \$40.6                                | \$31.4                            | \$49.8                            |
| No Documentation                   | 163                      | \$98,392.8               | \$98,228.8          | \$31.8                                | \$24.8                            | \$38.9                            |
| Admin/Other                        | 89                       | \$54,707.5               | \$55,234.8          | \$21.2                                | \$14.1                            | \$28.2                            |
| Number of Unit(s) Error            | 60                       | \$78,212.7               | \$171,012.5         | \$6.7                                 | \$3.5                             | \$9.9                             |
| Pricing Error                      | 225                      | \$90,653.5               | \$730,848.6         | \$6.0                                 | \$1.8                             | \$10.2                            |
| FFS Claim for Managed Care Service | 16                       | \$65,330.7               | \$65,330.7          | \$4.3                                 | -\$2.0                            | \$10.7                            |
| Procedure Coding Error             | 30                       | \$11,149.7               | \$13,935.3          | \$4.1                                 | \$1.9                             | \$6.4                             |
| Diagnosis Coding Error             | 14                       | \$45,877.7               | \$74,996.9          | \$3.8                                 | -\$0.5                            | \$8.1                             |
| Third-party Liability              | 34                       | \$2,163.6                | \$1,558.8           | \$3.1                                 | -\$0.1                            | \$6.2                             |
| Logic Edit                         | 21                       | \$1,805.2                | \$2,055.8           | \$2.1                                 | \$0.7                             | \$3.5                             |

| Error Type  | Number of Payment Errors | Sample Dollars in Errors | Sample Dollars Paid   | Projected Dollars in Error (millions) | Lower Confidence Limit (millions) | Upper Confidence Limit (millions) |
|---|--------------------------|--------------------------|-----------------------|---------------------------------------|-----------------------------------|-----------------------------------|
| Duplicate Item  | 13                       | \$10,053.7               | \$10,053.7            | \$1.0                                 | \$0.1                             | \$1.9                             |
| Data Entry Error  | 37                       | \$32,039.2               | \$32,325.1            | \$1.0                                 | \$0.0                             | \$2.0                             |
| Medically Unnecessary   | 4                        | \$12,741.9               | \$16,953.2            | \$0.5                                 | -\$0.2                            | \$1.2                             |
| Unbundling  | 1                        | \$4.8                    | \$4.8                 | \$0.0                                 | N/A                               | N/A                               |
| <b>Total</b>  | <b>1,627</b>             | <b>\$1,280,911.1</b>     | <b>\$38,095,741.4</b> | <b>\$313.1</b>                        | <b>\$277.7</b>                    | <b>\$348.6</b>                    |
| Note: Details do not always sum to the total due to rounding. |                          |                          |                       |                                       |                                   |                                   |

### *CHIP FFS Medical Review Payment Errors*

**Table T6. Summary of CHIP FFS Medical Review Overall Errors**

| Error Type  | Number of Payment Errors | Sample Dollars in Errors | Sample Dollars Paid   | Projected Dollars in Error (millions) | Lower Confidence Limit (millions) | Upper Confidence Limit (millions) |
|---|--------------------------|--------------------------|-----------------------|---------------------------------------|-----------------------------------|-----------------------------------|
| Policy Violation  | 164                      | \$77,721.7               | \$77,723.5            | \$65.6                                | \$42.5                            | \$88.7                            |
| Insufficient Documentation                                    | 232                      | \$71,898.5               | \$71,898.5            | \$40.6                                | \$31.4                            | \$49.8                            |
| No Documentation  | 163                      | \$98,228.8               | \$98,228.8            | \$31.2                                | \$24.3                            | \$38.2                            |
| Admin/Other   | 37                       | \$6,570.2                | \$7,104.5             | \$7.4                                 | \$3.4                             | \$11.3                            |
| Number of Unit(s) Error                                       | 60                       | \$77,669.7               | \$171,012.5           | \$6.1                                 | \$3.1                             | \$9.1                             |
| Procedure Coding Error  | 30                       | \$11,149.7               | \$13,935.3            | \$4.1                                 | \$1.9                             | \$6.4                             |
| Diagnosis Coding Error  | 14                       | \$45,877.7               | \$74,996.9            | \$3.8                                 | -\$0.5                            | \$8.1                             |
| Medically Unnecessary   | 4                        | \$12,741.9               | \$16,953.2            | \$0.5                                 | -\$0.2                            | \$1.2                             |
| Unbundling  | 1                        | \$4.8                    | \$4.8                 | \$0.0                                 | N/A                               | N/A                               |
| <b>Total</b>  | <b>705</b>               | <b>\$401,863.1</b>       | <b>\$38,095,741.4</b> | <b>\$159.3</b>                        | <b>\$132.8</b>                    | <b>\$185.8</b>                    |
| Note: Details do not always sum to the total due to rounding. |                          |                          |                       |                                       |                                   |                                   |

**Table T7. Summary of CHIP FFS Medical Review Overpayment Errors**

| Error Type  | Number of Payment Errors | Sample Dollars in Errors | Sample Dollars Paid   | Projected Dollars in Error (millions) | Lower Confidence Limit (millions) | Upper Confidence Limit (millions) |
|---|--------------------------|--------------------------|-----------------------|---------------------------------------|-----------------------------------|-----------------------------------|
| Policy Violation  | 164                      | \$77,721.7               | \$77,723.5            | \$65.6                                | \$42.5                            | \$88.7                            |
| Insufficient Documentation                                    | 232                      | \$71,898.5               | \$71,898.5            | \$40.6                                | \$31.4                            | \$49.8                            |
| No Documentation  | 163                      | \$98,228.8               | \$98,228.8            | \$31.2                                | \$24.3                            | \$38.2                            |
| Admin/Other   | 37                       | \$6,570.2                | \$7,104.5             | \$7.4                                 | \$3.4                             | \$11.3                            |
| Number of Unit(s) Error                                       | 59                       | \$51,836.2               | \$171,012.5           | \$5.8                                 | \$2.8                             | \$8.7                             |
| Procedure Coding Error  | 28                       | \$11,078.6               | \$13,935.3            | \$3.6                                 | \$1.5                             | \$5.8                             |
| Diagnosis Coding Error  | 9                        | \$39,376.2               | \$74,996.9            | \$3.5                                 | -\$0.8                            | \$7.8                             |
| Medically Unnecessary   | 4                        | \$12,741.9               | \$16,953.2            | \$0.5                                 | -\$0.2                            | \$1.2                             |
| Unbundling  | 1                        | \$4.8                    | \$4.8                 | \$0.0                                 | N/A                               | N/A                               |
| <b>Total</b>  | <b>697</b>               | <b>\$369,457.0</b>       | <b>\$38,095,741.4</b> | <b>\$158.2</b>                        | <b>\$131.7</b>                    | <b>\$184.7</b>                    |
| Note: Details do not always sum to the total due to rounding. |                          |                          |                       |                                       |                                   |                                   |

**Table T8. Summary of CHIP FFS Medical Review Underpayment Errors**

| Error Type  | Number of Payment Errors | Sample Dollars in Errors | Sample Dollars Paid   | Projected Dollars in Error (millions) | Lower Confidence Limit (millions) | Upper Confidence Limit (millions) |
|---|--------------------------|--------------------------|-----------------------|---------------------------------------|-----------------------------------|-----------------------------------|
| Procedure Coding Error  | 2                        | \$71.1                   | \$13,935.3            | \$0.5                                 | -\$0.2                            | \$1.2                             |
| Number of Unit(s) Error                                       | 1                        | \$25,833.5               | \$171,012.5           | \$0.3                                 | N/A                               | N/A                               |
| Diagnosis Coding Error  | 5                        | \$6,501.5                | \$74,996.9            | \$0.3                                 | \$0.0                             | \$0.6                             |
| Admin/Other   | 0                        | \$0.0                    | \$7,104.5             | \$0.0                                 | \$0.0                             | \$0.0                             |
| Insufficient Documentation                                    | 0                        | \$0.0                    | \$71,898.5            | \$0.0                                 | \$0.0                             | \$0.0                             |
| Medically Unnecessary   | 0                        | \$0.0                    | \$16,953.2            | \$0.0                                 | \$0.0                             | \$0.0                             |
| No Documentation  | 0                        | \$0.0                    | \$98,228.8            | \$0.0                                 | \$0.0                             | \$0.0                             |
| Policy Violation  | 0                        | \$0.0                    | \$77,723.5            | \$0.0                                 | \$0.0                             | \$0.0                             |
| Unbundling  | 0                        | \$0.0                    | \$4.8                 | \$0.0                                 | N/A                               | N/A                               |
| <b>Total</b>  | <b>8</b>                 | <b>\$32,406.1</b>        | <b>\$38,095,741.4</b> | <b>\$1.1</b>                          | <b>\$0.2</b>                      | <b>\$2.0</b>                      |
| Note: Details do not always sum to the total due to rounding. |                          |                          |                       |                                       |                                   |                                   |

***Medical Review Payment Errors: Policy Violation***

**Table T9. Specific Causes of "Policy Violation" Error**

| Cause of Error  | Number of Payment Errors | Sample Dollars in Errors | Projected Dollars in Error (millions) | Lower Confidence Limit (millions) | Upper Confidence Limit (millions) |
|---|--------------------------|--------------------------|---------------------------------------|-----------------------------------|-----------------------------------|
| Documentation does not meet the State policy requirements for the service performed       | 141                      | \$71,482.4               | \$60.7                                | \$53.8                            | \$67.5                            |
| Required provider signature and/or credentials not provided                               | 13                       | \$3,203.2                | \$3.2                                 | \$2.2                             | \$4.2                             |
| Other   | 2                        | \$149.7                  | \$1.4                                 | \$1.4                             | \$1.4                             |
| Required record of recipient acceptance or refusal of medication counseling not available | 6                        | \$159.9                  | \$0.2                                 | \$0.2                             | \$0.3                             |
| Prescription supplied is missing one or more of the components required                   | 1                        | \$498.6                  | \$0.1                                 | N/A                               | N/A                               |
| Service performed is not a covered service  | 1                        | \$2,227.9                | \$0.0                                 | N/A                               | N/A                               |
| <b>Total</b>  | <b>164</b>               | <b>\$77,721.7</b>        | <b>\$65.6</b>                         | <b>\$59.3</b>                     | <b>\$72.0</b>                     |
| Note: Details do not always sum to the total due to rounding.                             |                          |                          |                                       |                                   |                                   |



***Medical Review Payment Errors: Insufficient Documentation***

**Table T10. Specific Causes of "Insufficient Documentation" Error**

| Cause of Error  | Number of Sample Payment Errors | Sample Dollars in Errors | Projected Dollars in Error (millions) | Lower Confidence Limit (millions) | Upper Confidence Limit (millions) |
|---|---------------------------------|--------------------------|---------------------------------------|-----------------------------------|-----------------------------------|
| No response to request for additional documents   | 83                              | \$47,186.4               | \$19.9                                | \$17.8                            | \$21.9                            |
| Provider did not supply sufficient documentation to support the claim                         | 104                             | \$22,014.2               | \$16.5                                | \$14.2                            | \$18.9                            |
| Medical records do not contain daily documentation of specific tasks performed on sampled DOS | 11                              | \$660.0                  | \$1.1                                 | \$0.8                             | \$1.3                             |
| Pharmacy signature log not provided   | 12                              | \$826.7                  | \$0.9                                 | \$0.5                             | \$1.3                             |
| Medical records do not contain the provider's order   | 10                              | \$185.0                  | \$0.7                                 | \$0.5                             | \$1.0                             |
| The Individual Plan was provided but was not applicable to the sampled DOS                    | 3                               | \$219.3                  | \$0.7                                 | \$0.1                             | \$1.3                             |
| Provider states patient not seen on sampled date/s of service                                 | 2                               | \$130.6                  | \$0.5                                 | -\$0.3                            | \$1.2                             |
| Medical records do not contain the service plan   | 2                               | \$383.1                  | \$0.1                                 | \$0.1                             | \$0.1                             |
| Face to face assessment documentation not provided  | 1                               | \$140.6                  | \$0.1                                 | N/A                               | N/A                               |
| Provider states recipient not seen on sampled DOS   | 1                               | \$1.0                    | \$0.1                                 | N/A                               | N/A                               |
| Other   | 1                               | \$114.7                  | \$0.0                                 | N/A                               | N/A                               |
| Provider did not supply a valid prescription  | 1                               | \$4.5                    | \$0.0                                 | N/A                               | N/A                               |
| Required progress notes applicable to DOS sampled not provided                                | 1                               | \$32.5                   | \$0.0                                 | N/A                               | N/A                               |
| <b>Total</b>  | <b>232</b>                      | <b>\$71,898.5</b>        | <b>\$40.6</b>                         | <b>\$38.1</b>                     | <b>\$43.1</b>                     |
| Note: Details do not always sum to the total due to rounding.                                 |                                 |                          |                                       |                                   |                                   |

***Medical Review Payment Errors: No Documentation***

**Table T11. Specific Causes of "No Documentation" Error**

| Cause of Error  | Number of Payment Errors | Sample Dollars in Errors | Projected Dollars in Error (millions) | Lower Confidence Limit (millions) | Upper Confidence Limit (millions) |
|---|--------------------------|--------------------------|---------------------------------------|-----------------------------------|-----------------------------------|
| Provider did not respond to the request for records           | 97                       | \$89,132.4               | \$19.6                                | \$17.9                            | \$21.3                            |
| Provider did not have patient on file or in their system      | 18                       | \$1,346.9                | \$4.1                                 | \$2.9                             | \$5.2                             |
| State could not locate provider                               | 9                        | \$1,774.0                | \$2.3                                 | \$2.2                             | \$2.3                             |
| Provider states recipient not seen on sampled DOS             | 11                       | \$902.5                  | \$2.1                                 | \$2.0                             | \$2.1                             |
| Provider out of business/retired and record is not available  | 15                       | \$3,372.5                | \$1.6                                 | \$0.3                             | \$2.9                             |
| Provider cannot locate record                                 | 7                        | \$467.3                  | \$0.9                                 | -\$0.1                            | \$1.9                             |
| Provider submitted wrong date of service                      | 1                        | \$195.0                  | \$0.4                                 | N/A                               | N/A                               |
| Other   | 1                        | \$873.6                  | \$0.3                                 | N/A                               | N/A                               |
| Provider states record destroyed or lost                      | 2                        | \$90.6                   | \$0.0                                 | \$0.0                             | \$0.0                             |
| Provider states billed for wrong recipient                    | 1                        | \$4.0                    | \$0.0                                 | N/A                               | N/A                               |
| Illegible record  | 1                        | \$70.0                   | \$0.0                                 | N/A                               | N/A                               |
| <b>Total</b>  | <b>163</b>               | <b>\$98,228.8</b>        | <b>\$31.2</b>                         | <b>\$30.1</b>                     | <b>\$32.4</b>                     |
| Note: Details do not always sum to the total due to rounding. |                          |                          |                                       |                                   |                                   |

***CHIP FFS Medical Review Errors by Service Type***

**Table T12. CHIP FFS Medical Review Error by Service Type**

| Category  | Number of Sample Payment Errors | Number of Claims Sampled | Sample Dollars in Errors | Sample Dollars Paid | Projected Dollars in Error (millions) | Projected Paid Amount (millions) | Error Rate | 95% CI          |
|---|---------------------------------|--------------------------|--------------------------|---------------------|---------------------------------------|----------------------------------|------------|-----------------|
| Prescribed Drugs  | 194                             | 3,716                    | \$113,244.1              | \$2,550,129.1       | \$71.8                                | \$1,010.5                        | 7.1%       | 4.5% - 9.7%     |
| Psychiatric, Mental Health, and Behavioral Health Services  | 116                             | 2,593                    | \$86,235.8               | \$5,833,975.9       | \$20.7                                | \$635.8                          | 3.3%       | 2.3% - 4.2%     |
| Physicians and Other Licensed Practitioner Services   | 96                              | 2,233                    | \$22,855.7               | \$470,095.7         | \$16.7                                | \$554.1                          | 3.0%       | 2.0% - 4.0%     |
| Outpatient Hospital Services and Clinics  | 58                              | 2,292                    | \$23,179.7               | \$1,012,818.5       | \$11.3                                | \$513.9                          | 2.2%       | 1.4% - 3.0%     |
| Dental and Other Oral Surgery Services  | 58                              | 3,023                    | \$15,903.9               | \$785,661.2         | \$10.9                                | \$823.9                          | 1.3%       | 0.7% - 1.9%     |
| Inpatient and Outpatient Hospital   | 48                              | 2,922                    | \$123,137.7              | \$16,233,624.0      | \$8.5                                 | \$906.7                          | 0.9%       | 0.3% - 1.6%     |
| Habilitation and Waiver Programs, School Services   | 42                              | 999                      | \$3,277.8                | \$109,838.8         | \$7.0                                 | \$161.2                          | 4.3%       | 2.0% - 6.7%     |
| Therapies, Hearing and Rehabilitation Services  | 15                              | 266                      | \$2,253.2                | \$38,339.9          | \$5.1                                 | \$37.2                           | 13.6%      | 11.0% - 16.2%   |
| Personal Support Services   | 32                              | 579                      | \$7,272.9                | \$105,245.1         | \$2.9                                 | \$79.9                           | 3.6%       | 2.1% - 5.1%     |
| Transportation and Accommodations   | 7                               | 160                      | \$603.1                  | \$72,768.8          | \$1.2                                 | \$20.4                           | 6.1%       | 1.8% - 10.4%    |
| Durable Medical Equipment (DME) and Supplies, Prosthetic/Orthopedic Devices and Environmental Modifications | 8                               | 192                      | \$2,147.7                | \$70,864.4          | \$1.1                                 | \$29.5                           | 3.8%       | 2.5% - 5.1%     |
| Vision: Ophthalmology, Optometry and Optical Services   | 4                               | 316                      | \$213.3                  | \$13,724.2          | \$0.9                                 | \$65.5                           | 1.4%       | 1.1% - 1.7%     |
| Home Health Services  | 11                              | 305                      | \$1,211.4                | \$50,195.0          | \$0.9                                 | \$19.0                           | 4.8%       | ( 1.8%) - 11.3% |
| Laboratory, X-ray and Imaging Services  | 16                              | 686                      | \$326.8                  | \$19,643.9          | \$0.3                                 | \$43.2                           | 0.6%       | ( 0.2%) - 1.4%  |
| Capitated Care/Fixed Payments   | 0                               | 1,044                    | \$0.0                    | \$10,579,188.7      | \$0.0                                 | \$111.0                          | 0.0%       | 0.0% - 0.0%     |

| Category  | Number of Sample Payment Errors | Number of Claims Sampled | Sample Dollars in Errors | Sample Dollars Paid   | Projected Dollars in Error (millions) | Projected Paid Amount (millions) | Error Rate  | 95% CI             |
|---|---------------------------------|--------------------------|--------------------------|-----------------------|---------------------------------------|----------------------------------|-------------|--------------------|
| Crossover Claims  | 0                               | 261                      | \$0.0                    | \$23,639.8            | \$0.0                                 | \$0.3                            | 0.0%        | 0.0% - 0.0%        |
| Denied Claims   | 0                               | 1,732                    | \$0.0                    | \$0.0                 | \$0.0                                 | \$0.0                            | N/A         | N/A                |
| Hospice Services  | 0                               | 2                        | \$0.0                    | \$292.0               | \$0.0                                 | \$0.0                            | 0.0%        | N/A                |
| ICF for the Mentally Retarded and Group Homes                 | 0                               | 26                       | \$0.0                    | \$28,433.4            | \$0.0                                 | \$0.3                            | 0.0%        | 0.0% - 0.0%        |
| Managed Care  | 0                               | 2                        | \$0.0                    | \$92.2                | \$0.0                                 | \$10.9                           | 0.0%        | N/A                |
| Nursing Facility, Intermediate Care Facilities                | 0                               | 22                       | \$0.0                    | \$97,170.8            | \$0.0                                 | \$1.5                            | 0.0%        | 0.0% - 0.0%        |
| <b>Total</b>  | <b>705</b>                      | <b>23,371</b>            | <b>\$401,863.1</b>       | <b>\$38,095,741.4</b> | <b>\$159.3</b>                        | <b>\$5,024.8</b>                 | <b>3.2%</b> | <b>2.6% - 3.8%</b> |
| Note: Details do not always sum to the total due to rounding. |                                 |                          |                          |                       |                                       |                                  |             |                    |

## CHIP FFS Data Processing Payment Errors

**Table T13. Summary of CHIP FFS Data Processing Overall Errors**

| Error Type  | Number of Payment Errors | Sample Dollars in Errors | Sample Dollars Paid   | Projected Dollars in Error (millions) | Lower Confidence Limit (millions) | Upper Confidence Limit (millions) |
|---|--------------------------|--------------------------|-----------------------|---------------------------------------|-----------------------------------|-----------------------------------|
| Non-covered Service   | 554                      | \$650,363.6              | \$650,684.9           | \$131.1                               | \$109.1                           | \$153.1                           |
| Admin/Other   | 71                       | \$69,105.8               | \$69,485.8            | \$20.0                                | \$13.2                            | \$26.9                            |
| Pricing Error   | 237                      | \$91,262.6               | \$732,141.5           | \$7.7                                 | \$3.1                             | \$12.4                            |
| FFS Claim for Managed Care Service                            | 19                       | \$66,061.3               | \$66,061.3            | \$4.3                                 | -\$2.0                            | \$10.7                            |
| Third-party Liability   | 34                       | \$2,163.6                | \$1,558.8             | \$3.1                                 | -\$0.1                            | \$6.2                             |
| Logic Edit  | 24                       | \$4,875.7                | \$5,126.2             | \$2.9                                 | \$1.2                             | \$4.6                             |
| Duplicate Item  | 14                       | \$10,321.5               | \$10,321.5            | \$1.0                                 | \$0.2                             | \$1.9                             |
| Data Entry Error  | 37                       | \$32,039.2               | \$32,325.1            | \$1.0                                 | \$0.0                             | \$2.0                             |
| <b>Total</b>  | <b>990</b>               | <b>\$926,193.4</b>       | <b>\$38,095,741.4</b> | <b>\$171.2</b>                        | <b>\$146.6</b>                    | <b>\$195.8</b>                    |
| Note: Details do not always sum to the total due to rounding. |                          |                          |                       |                                       |                                   |                                   |

**Table T14. Summary of CHIP FFS Data Processing Overpayment Errors**

| Error Type  | Number of Payment Errors | Sample Dollars in Errors | Sample Dollars Paid   | Projected Dollars in Error (millions) | Lower Confidence Limit (millions) | Upper Confidence Limit (millions) |
|---|--------------------------|--------------------------|-----------------------|---------------------------------------|-----------------------------------|-----------------------------------|
| Non-covered Service   | 549                      | \$650,262.4              | \$650,684.9           | \$130.4                               | \$108.4                           | \$152.4                           |
| Admin/Other   | 71                       | \$69,105.8               | \$69,485.8            | \$20.0                                | \$13.2                            | \$26.9                            |
| FFS Claim for Managed Care Service                            | 19                       | \$66,061.3               | \$66,061.3            | \$4.3                                 | -\$2.0                            | \$10.7                            |
| Logic Edit  | 21                       | \$4,818.2                | \$5,126.2             | \$2.9                                 | \$1.2                             | \$4.6                             |
| Pricing Error   | 153                      | \$77,217.5               | \$732,141.5           | \$2.6                                 | \$1.4                             | \$3.8                             |
| Third-party Liability   | 28                       | \$1,507.5                | \$1,558.8             | \$1.2                                 | \$0.3                             | \$2.1                             |
| Duplicate Item  | 14                       | \$10,321.5               | \$10,321.5            | \$1.0                                 | \$0.2                             | \$1.9                             |
| Data Entry Error  | 37                       | \$32,039.2               | \$32,325.1            | \$1.0                                 | \$0.0                             | \$2.0                             |
| <b>Total</b>  | <b>892</b>               | <b>\$911,333.4</b>       | <b>\$38,095,741.4</b> | <b>\$163.5</b>                        | <b>\$139.5</b>                    | <b>\$187.5</b>                    |
| Note: Details do not always sum to the total due to rounding. |                          |                          |                       |                                       |                                   |                                   |

**Table T15. Summary of CHIP FFS Data Processing Underpayment Errors**

| Error Type  | Number of Payment Errors | Sample Dollars in Errors | Sample Dollars Paid   | Projected Dollars in Error (millions) | Lower Confidence Limit (millions) | Upper Confidence Limit (millions) |
|---|--------------------------|--------------------------|-----------------------|---------------------------------------|-----------------------------------|-----------------------------------|
| Pricing Error   | 84                       | \$14,045.1               | \$732,141.5           | \$5.1                                 | \$0.7                             | \$9.6                             |
| Third-party Liability   | 6                        | \$656.2                  | \$1,558.8             | \$1.8                                 | -\$1.2                            | \$4.9                             |
| Non-covered Service   | 5                        | \$101.2                  | \$650,684.9           | \$0.7                                 | \$0.0                             | \$1.3                             |
| Logic Edit  | 3                        | \$57.6                   | \$5,126.2             | \$0.0                                 | \$0.0                             | \$0.0                             |
| Admin/Other   | 0                        | \$0.0                    | \$69,485.8            | \$0.0                                 | \$0.0                             | \$0.0                             |
| Data Entry Error  | 0                        | \$0.0                    | \$32,325.1            | \$0.0                                 | \$0.0                             | \$0.0                             |
| Duplicate Item  | 0                        | \$0.0                    | \$10,321.5            | \$0.0                                 | \$0.0                             | \$0.0                             |
| FFS Claim for Managed Care Service                            | 0                        | \$0.0                    | \$66,061.3            | \$0.0                                 | \$0.0                             | \$0.0                             |
| <b>Total</b>  | <b>98</b>                | <b>\$14,860.0</b>        | <b>\$38,095,741.4</b> | <b>\$7.7</b>                          | <b>\$2.2</b>                      | <b>\$13.1</b>                     |
| Note: Details do not always sum to the total due to rounding. |                          |                          |                       |                                       |                                   |                                   |

***Data Processing Payment Errors: Non-covered Service***

**Table T16. Specific Causes of "Non-covered Service" Error**

| Cause of Error   | Number of Payment Errors | Sample Dollars in Errors | Projected Dollars in Error (millions) | Lower Confidence Limit (millions) | Upper Confidence Limit (millions) |
|--|--------------------------|--------------------------|---------------------------------------|-----------------------------------|-----------------------------------|
| New provider not enrolled using ACA risk-based criteria                        | 132                      | \$146,180.6              | \$35.8                                | \$27.6                            | \$44.0                            |
| Referring/ordering provider not enrolled                                       | 74                       | \$5,337.4                | \$31.3                                | \$21.6                            | \$40.9                            |
| Provider not enrolled in Medicaid/CHIP   | 71                       | \$288,957.6              | \$20.2                                | \$14.3                            | \$26.1                            |
| Required provider license not current for DOS                                  | 32                       | \$22,030.5               | \$15.3                                | \$12.9                            | \$17.8                            |
| Attending or rendering provider required but not listed on institutional claim | 59                       | \$87,477.7               | \$13.2                                | \$11.2                            | \$15.2                            |
| Referring/ordering provider required but not listed on claim                   | 112                      | \$11,155.3               | \$7.4                                 | \$3.9                             | \$10.9                            |
| Recipient not eligible for applicable program on DOS                           | 49                       | \$87,267.0               | \$5.2                                 | \$5.0                             | \$5.4                             |
| Prior authorization required or not current for DOS                            | 4                        | \$1,088.2                | \$0.7                                 | \$0.7                             | \$0.8                             |
| Covered service was incorrectly denied   | 5                        | \$101.2                  | \$0.7                                 | \$0.3                             | \$1.1                             |
| Non-covered based on service location  | 6                        | \$138.8                  | \$0.5                                 | \$0.0                             | \$1.1                             |
| Other  | 8                        | \$535.4                  | \$0.5                                 | \$0.1                             | \$0.8                             |
| HB-Services not approved by Service Plan                                       | 2                        | \$94.1                   | \$0.2                                 | \$0.2                             | \$0.2                             |
| <b>Total</b>   | <b>554</b>               | <b>\$650,363.6</b>       | <b>\$131.1</b>                        | <b>\$117.1</b>                    | <b>\$145.0</b>                    |
| Note: Details do not always sum to the total due to rounding.                  |                          |                          |                                       |                                   |                                   |

*Data Processing Payment Errors: Admin/Other*

**Table T17. Specific Causes of "Admin/Other" Error**

| Cause of Error  | Number of Payment Errors | Sample Dollars in Errors | Projected Dollars in Error (millions) | Lower Confidence Limit (millions) | Upper Confidence Limit (millions) |
|---|--------------------------|--------------------------|---------------------------------------|-----------------------------------|-----------------------------------|
| State did not provide documentation needed to complete the review | 41                       | \$50,725.5               | \$19.6                                | \$18.9                            | \$20.2                            |
| Claim filed untimely  | 30                       | \$18,380.3               | \$0.5                                 | \$0.4                             | \$0.5                             |
| <b>Total</b>  | <b>71</b>                | <b>\$69,105.8</b>        | <b>\$20.0</b>                         | <b>\$19.4</b>                     | <b>\$20.7</b>                     |
| Note: Details do not always sum to the total due to rounding.     |                          |                          |                                       |                                   |                                   |



***Data Processing Payment Errors: Pricing Error***

**Table T18. Specific Causes of "Pricing Error" Error**

| Cause of Error   | Number of Payment Errors | Sample Dollars in Errors | Projected Dollars in Error (millions) | Lower Confidence Limit (millions) | Upper Confidence Limit (millions) |
|--|--------------------------|--------------------------|---------------------------------------|-----------------------------------|-----------------------------------|
| State was unable to provide documentation to support rate used for payment | 10                       | \$8,042.1                | \$3.7                                 | \$3.6                             | \$3.7                             |
| System input error caused wrong pricing                                    | 45                       | \$21,538.3               | \$1.7                                 | \$1.5                             | \$1.9                             |
| Other  | 12                       | \$42,505.7               | \$0.6                                 | \$0.1                             | \$1.2                             |
| Incorrect manual calculation   | 8                        | \$5,745.5                | \$0.6                                 | -\$0.4                            | \$1.5                             |
| Incorrect federal match used   | 5                        | \$450.0                  | \$0.4                                 | \$0.4                             | \$0.4                             |
| System calculation incorrect   | 131                      | \$12,741.1               | \$0.3                                 | \$0.3                             | \$0.3                             |
| Co-pay should not have been deducted from payment                          | 16                       | \$65.4                   | \$0.3                                 | -\$0.1                            | \$0.7                             |
| Co-pay should have been deducted from payment                              | 4                        | \$50.0                   | \$0.1                                 | \$0.0                             | \$0.2                             |
| System defect caused incorrect pricing                                     | 5                        | \$99.5                   | \$0.1                                 | \$0.0                             | \$0.2                             |
| Incorrect co-pay deducted from payment                                     | 1                        | \$25.0                   | \$0.0                                 | N/A                               | N/A                               |
| <b>Total</b>   | <b>237</b>               | <b>\$91,262.6</b>        | <b>\$7.7</b>                          | <b>\$6.6</b>                      | <b>\$8.9</b>                      |
| Note: Details do not always sum to the total due to rounding.              |                          |                          |                                       |                                   |                                   |

***CHIP FFS Data Processing Errors by Service Type***

**Table T19. CHIP FFS Data Processing Error by Service Type**

| Category  | Number of Sample Payment Errors | Number of Claims Sampled | Sample Dollars in Errors | Sample Dollars Paid | Projected Dollars in Error (millions) | Projected Paid Amount (millions) | Error Rate | 95% CI       |
|---|---------------------------------|--------------------------|--------------------------|---------------------|---------------------------------------|----------------------------------|------------|--------------|
| Prescribed Drugs  | 201                             | 3,716                    | \$9,755.5                | \$2,550,129.1       | \$39.5                                | \$1,010.5                        | 3.9%       | 2.5% - 5.4%  |
| Physicians and Other Licensed Practitioner Services   | 72                              | 2,233                    | \$15,527.9               | \$470,095.7         | \$28.9                                | \$554.1                          | 5.2%       | 3.5% - 6.9%  |
| Dental and Other Oral Surgery Services  | 73                              | 3,023                    | \$10,555.4               | \$785,661.2         | \$26.0                                | \$823.9                          | 3.2%       | 1.8% - 4.5%  |
| Inpatient and Outpatient Hospital   | 145                             | 2,922                    | \$357,916.3              | \$16,233,624.0      | \$21.5                                | \$906.7                          | 2.4%       | 1.3% - 3.5%  |
| Outpatient Hospital Services and Clinics  | 58                              | 2,292                    | \$13,831.3               | \$1,012,818.5       | \$20.6                                | \$513.9                          | 4.0%       | 2.0% - 6.0%  |
| Psychiatric, Mental Health, and Behavioral Health Services  | 105                             | 2,593                    | \$434,633.9              | \$5,833,975.9       | \$17.5                                | \$635.8                          | 2.8%       | 2.0% - 3.5%  |
| Therapies, Hearing and Rehabilitation Services  | 44                              | 266                      | \$2,965.4                | \$38,339.9          | \$5.2                                 | \$37.2                           | 14.1%      | 8.6% - 19.6% |
| Durable Medical Equipment (DME) and Supplies, Prosthetic/Orthopedic Devices and Environmental Modifications | 24                              | 192                      | \$1,936.8                | \$70,864.4          | \$2.6                                 | \$29.5                           | 8.8%       | 4.7% - 12.8% |
| Denied Claims   | 11                              | 1,732                    | \$749.6                  | \$0.0               | \$2.5                                 | \$0.0                            | N/A        | N/A          |
| Laboratory, X-ray and Imaging Services  | 51                              | 686                      | \$912.7                  | \$19,643.9          | \$1.7                                 | \$43.2                           | 4.0%       | 2.7% - 5.2%  |
| Vision: Ophthalmology, Optometry and Optical Services   | 11                              | 316                      | \$727.8                  | \$13,724.2          | \$1.5                                 | \$65.5                           | 2.3%       | 1.4% - 3.2%  |
| Home Health Services  | 51                              | 305                      | \$7,277.5                | \$50,195.0          | \$1.3                                 | \$19.0                           | 6.6%       | 4.5% - 8.7%  |
| Habilitation and Waiver Programs, School Services   | 30                              | 999                      | \$6,083.9                | \$109,838.8         | \$0.8                                 | \$161.2                          | 0.5%       | 0.4% - 0.7%  |
| Personal Support Services   | 13                              | 579                      | \$2,843.1                | \$105,245.1         | \$0.7                                 | \$79.9                           | 0.9%       | 0.4% - 1.4%  |
| Capitated Care/Fixed Payments   | 9                               | 1,044                    | \$46,521.9               | \$10,579,188.7      | \$0.3                                 | \$111.0                          | 0.3%       | 0.2% - 0.3%  |

| Category  | Number of Sample Payment Errors | Number of Claims Sampled | Sample Dollars in Errors | Sample Dollars Paid   | Projected Dollars in Error (millions) | Projected Paid Amount (millions) | Error Rate  | 95% CI             |
|---|---------------------------------|--------------------------|--------------------------|-----------------------|---------------------------------------|----------------------------------|-------------|--------------------|
| Transportation and Accommodations                             | 4                               | 160                      | \$568.3                  | \$72,768.8            | \$0.3                                 | \$20.4                           | 1.3%        | ( 0.5%) - 3.0%     |
| Crossover Claims  | 82                              | 261                      | \$5,652.6                | \$23,639.8            | \$0.1                                 | \$0.3                            | 39.2%       | 29.3% - 49.2%      |
| ICF for the Mentally Retarded and Group Homes                 | 5                               | 26                       | \$7,584.7                | \$28,433.4            | \$0.0                                 | \$0.3                            | 5.0%        | 1.0% - 8.9%        |
| Hospice Services  | 1                               | 2                        | \$148.8                  | \$292.0               | \$0.0                                 | \$0.0                            | 75.6%       | N/A                |
| Managed Care  | 0                               | 2                        | \$0.0                    | \$92.2                | \$0.0                                 | \$10.9                           | 0.0%        | N/A                |
| Nursing Facility, Intermediate Care Facilities                | 0                               | 22                       | \$0.0                    | \$97,170.8            | \$0.0                                 | \$1.5                            | 0.0%        | 0.0% - 0.0%        |
| <b>Total</b>  | <b>990</b>                      | <b>23,371</b>            | <b>\$926,193.4</b>       | <b>\$38,095,741.4</b> | <b>\$171.2</b>                        | <b>\$5,024.8</b>                 | <b>3.4%</b> | <b>2.8% - 4.0%</b> |
| Note: Details do not always sum to the total due to rounding. |                                 |                          |                          |                       |                                       |                                  |             |                    |

## CHIP Managed Care Component Payment Error Rate

Table T20. CHIP Managed Care Data Processing Payment Error Rates by State

| State           | Number of Payment Errors | Sample Dollars in Errors | Sample Dollars Paid  | Error Rate  | 95% CI             |
|-----------------|--------------------------|--------------------------|----------------------|-------------|--------------------|
| <b>National</b> | <b>121</b>               | <b>\$4,176.2</b>         | <b>\$1,959,720.3</b> | <b>0.2%</b> | <b>0.0% - 0.3%</b> |
| ST1             | 3                        | \$558.6                  | \$53,016.5           | 1.1%        | ( 0.1%) - 2.3%     |
| ST2             | 2                        | \$725.1                  | \$69,148.5           | 0.5%        | ( 0.2%) - 1.3%     |
| ST3             | 1                        | \$92.2                   | \$23,698.4           | 0.5%        | ( 0.4%) - 1.4%     |
| ST4             | 1                        | \$114.4                  | \$54,078.6           | 0.4%        | ( 0.4%) - 1.2%     |
| ST5             | 2                        | \$562.1                  | \$159,112.6          | 0.4%        | ( 0.1%) - 0.9%     |
| ST6             | 1                        | \$148.8                  | \$38,491.9           | 0.3%        | ( 0.3%) - 1.0%     |
| ST7             | 1                        | \$118.5                  | \$53,971.9           | 0.3%        | ( 0.3%) - 1.0%     |
| ST8             | 1                        | \$327.5                  | \$47,163.9           | 0.3%        | ( 0.3%) - 0.9%     |
| ST9             | 2                        | \$1,462.1                | \$209,715.8          | 0.1%        | ( 0.1%) - 0.4%     |
| ST10            | 104                      | \$35.6                   | \$31,830.6           | 0.1%        | ( 0.1%) - 0.4%     |
| ST11            | 3                        | \$31.5                   | \$10,789.0           | 0.1%        | ( 0.1%) - 0.3%     |
| ST12            | 0                        | \$0.0                    | \$23,327.6           | 0.0%        | 0.0% - 0.0%        |
| ST13            | 0                        | \$0.0                    | \$26,481.2           | 0.0%        | 0.0% - 0.0%        |
| ST14            | 0                        | \$0.0                    | \$27,337.2           | 0.0%        | 0.0% - 0.0%        |
| ST15            | 0                        | \$0.0                    | \$43,631.1           | 0.0%        | 0.0% - 0.0%        |
| ST16            | 0                        | \$0.0                    | \$30,296.9           | 0.0%        | 0.0% - 0.0%        |
| ST17            | 0                        | \$0.0                    | \$41,666.8           | 0.0%        | 0.0% - 0.0%        |
| ST18            | 0                        | \$0.0                    | \$4,759.4            | 0.0%        | 0.0% - 0.0%        |
| ST19            | 0                        | \$0.0                    | \$20,765.9           | 0.0%        | 0.0% - 0.0%        |
| ST20            | 0                        | \$0.0                    | \$41,643.3           | 0.0%        | 0.0% - 0.0%        |
| ST21            | 0                        | \$0.0                    | \$26,683.3           | 0.0%        | 0.0% - 0.0%        |
| ST22            | 0                        | \$0.0                    | \$49,891.9           | 0.0%        | 0.0% - 0.0%        |
| ST23            | 0                        | \$0.0                    | \$37,656.4           | 0.0%        | 0.0% - 0.0%        |
| ST24            | 0                        | \$0.0                    | \$21,721.5           | 0.0%        | 0.0% - 0.0%        |
| ST25            | 0                        | \$0.0                    | \$21,264.7           | 0.0%        | 0.0% - 0.0%        |
| ST26            | 0                        | \$0.0                    | \$242,633.1          | 0.0%        | 0.0% - 0.0%        |
| ST27            | 0                        | \$0.0                    | \$56,280.0           | 0.0%        | 0.0% - 0.0%        |
| ST28            | 0                        | \$0.0                    | \$39,410.0           | 0.0%        | 0.0% - 0.0%        |

| State   | Number of Payment Errors | Sample Dollars in Errors | Sample Dollars Paid | Error Rate | 95% CI      |
|---|--------------------------|--------------------------|---------------------|------------|-------------|
| ST29  | 0                        | \$0.0                    | \$54,294.3          | 0.0%       | 0.0% - 0.0% |
| ST30  | 0                        | \$0.0                    | \$77,539.6          | 0.0%       | 0.0% - 0.0% |
| ST31  | 0                        | \$0.0                    | \$45,899.2          | 0.0%       | 0.0% - 0.0% |
| ST32  | 0                        | \$0.0                    | \$18,365.1          | 0.0%       | 0.0% - 0.0% |
| ST33  | 0                        | \$0.0                    | \$76,738.8          | 0.0%       | 0.0% - 0.0% |
| ST34  | 0                        | \$0.0                    | \$31,447.7          | 0.0%       | 0.0% - 0.0% |
| ST35  | 0                        | \$0.0                    | \$29,119.7          | 0.0%       | 0.0% - 0.0% |
| ST36  | 0                        | \$0.0                    | \$27,182.4          | 0.0%       | 0.0% - 0.0% |
| ST37  | 0                        | \$0.0                    | \$28,706.0          | 0.0%       | 0.0% - 0.0% |
| ST38  | 0                        | \$0.0                    | \$63,959.6          | 0.0%       | 0.0% - 0.0% |
| Note: Details do not always sum to the total due to rounding. |                          |                          |                     |            |             |

### *CHIP Managed Care Payment Errors by Type of Error*

**Table T21. Summary of CHIP Managed Care Data Processing Projected Dollars by Type of Error**

| Error Type  | Number of Payment Errors | Sample Dollars in Errors | Sample Dollars Paid  | Projected Dollars in Error (millions) | Lower Confidence Limit (millions) | Upper Confidence Limit (millions) |
|---|--------------------------|--------------------------|----------------------|---------------------------------------|-----------------------------------|-----------------------------------|
| Non-covered Service   | 12                       | \$3,858.8                | \$3,858.8            | \$12.0                                | \$3.8                             | \$20.1                            |
| Rate Cell Error   | 3                        | \$153.5                  | \$202.3              | \$1.6                                 | -\$0.9                            | \$4.1                             |
| Pricing Error   | 1                        | \$114.4                  | \$114.4              | \$0.2                                 | N/A                               | N/A                               |
| MC Payment Error  | 105                      | \$49.5                   | \$12,597.1           | \$0.0                                 | \$0.0                             | \$0.1                             |
| <b>Total</b>  | <b>121</b>               | <b>\$4,176.2</b>         | <b>\$1,959,720.3</b> | <b>\$13.7</b>                         | <b>\$5.2</b>                      | <b>\$22.3</b>                     |
| Note: Details do not always sum to the total due to rounding. |                          |                          |                      |                                       |                                   |                                   |

### *CHIP Managed Care Data Processing Payment Errors*

**Table T22. Summary of CHIP Managed Care Data Processing Overpayment Errors**

| Error Type | Number of Payment Errors | Sample Dollars in Errors | Sample Dollars Paid | Projected Dollars in Error (millions) | Lower Confidence Limit (millions) | Upper Confidence Limit (millions) |
|------------|--------------------------|--------------------------|---------------------|---------------------------------------|-----------------------------------|-----------------------------------|
|            |                          |                          |                     |                                       |                                   |                                   |

|   |           |                  |                      |               |              |               |
|---|-----------|------------------|----------------------|---------------|--------------|---------------|
| Non-covered Service   | 12        | \$3,858.8        | \$3,858.8            | \$12.0        | \$3.8        | \$20.1        |
| Rate Cell Error   | 3         | \$153.5          | \$202.3              | \$1.6         | -\$0.9       | \$4.1         |
| Pricing Error   | 1         | \$114.4          | \$114.4              | \$0.2         | N/A          | N/A           |
| MC Payment Error  | 0         | \$0.0            | \$12,597.1           | \$0.0         | \$0.0        | \$0.0         |
| <b>Total</b>  | <b>16</b> | <b>\$4,126.7</b> | <b>\$1,959,720.3</b> | <b>\$13.7</b> | <b>\$5.2</b> | <b>\$22.2</b> |
| Note: Details do not always sum to the total due to rounding. |           |                  |                      |               |              |               |

**Table T23. Summary of CHIP Managed Care Data Processing Underpayment Errors**

| Error Type  | Number of Payment Errors | Sample Dollars in Errors | Sample Dollars Paid  | Projected Dollars in Error (millions) | Lower Confidence Limit (millions) | Upper Confidence Limit (millions) |
|---|--------------------------|--------------------------|----------------------|---------------------------------------|-----------------------------------|-----------------------------------|
| MC Payment Error  | 105                      | \$49.5                   | \$12,597.1           | \$0.0                                 | \$0.0                             | \$0.1                             |
| Non-covered Service   | 0                        | \$0.0                    | \$3,858.8            | \$0.0                                 | \$0.0                             | \$0.0                             |
| Pricing Error   | 0                        | \$0.0                    | \$114.4              | \$0.0                                 | N/A                               | N/A                               |
| Rate Cell Error   | 0                        | \$0.0                    | \$202.3              | \$0.0                                 | \$0.0                             | \$0.0                             |
| <b>Total</b>  | <b>105</b>               | <b>\$49.5</b>            | <b>\$1,959,720.3</b> | <b>\$0.0</b>                          | <b>\$0.0</b>                      | <b>\$0.1</b>                      |
| Note: Details do not always sum to the total due to rounding. |                          |                          |                      |                                       |                                   |                                   |

***Data Processing Payment Errors: Non-covered Service***

**Table T24. Specific Causes of "Non-covered Service" Error**

| Cause of Error  | Number of Payment Errors | Sample Dollars in Errors | Projected Dollars in Error (millions) | Lower Confidence Limit (millions) | Upper Confidence Limit (millions) |
|---|--------------------------|--------------------------|---------------------------------------|-----------------------------------|-----------------------------------|
| Recipient not eligible for applicable program on DOS          | 12                       | \$3,858.8                | \$12.0                                | \$12.0                            | \$12.0                            |
| <b>Total</b>  | <b>12</b>                | <b>\$3,858.8</b>         | <b>\$12.0</b>                         | <b>\$12.0</b>                     | <b>\$12.0</b>                     |
| Note: Details do not always sum to the total due to rounding. |                          |                          |                                       |                                   |                                   |

***Data Processing Payment Errors: Rate Cell Error***

**Table T25. Specific Causes of "Rate Cell Error" Error**

| Cause of Error  | Number of Payment Errors | Sample Dollars in Errors | Projected Dollars in Error (millions) | Lower Confidence Limit (millions) | Upper Confidence Limit (millions) |
|---|--------------------------|--------------------------|---------------------------------------|-----------------------------------|-----------------------------------|
| Recipient moved into different MCO area                       | 1                        | \$148.8                  | \$1.5                                 | N/A                               | N/A                               |
| Wrong rate cell used for Aid Category                         | 2                        | \$4.7                    | \$0.0                                 | \$0.0                             | \$0.0                             |
| <b>Total</b>  | <b>3</b>                 | <b>\$153.5</b>           | <b>\$1.6</b>                          | <b>\$1.6</b>                      | <b>\$1.6</b>                      |
| Note: Details do not always sum to the total due to rounding. |                          |                          |                                       |                                   |                                   |

*Data Processing Payment Errors: Pricing Error*

**Table T26. Specific Causes of "Pricing Error" Error**

| Cause of Error  | Number of Payment Errors | Sample Dollars in Errors | Projected Dollars in Error (millions) | Lower Confidence Limit (millions) | Upper Confidence Limit (millions) |
|---|--------------------------|--------------------------|---------------------------------------|-----------------------------------|-----------------------------------|
| Incorrect federal match used                                  | 1                        | \$114.4                  | \$0.2                                 | N/A                               | N/A                               |
| <b>Total</b>  | <b>1</b>                 | <b>\$114.4</b>           | <b>\$0.2</b>                          | <b>N/A</b>                        | <b>N/A</b>                        |
| Note: Details do not always sum to the total due to rounding. |                          |                          |                                       |                                   |                                   |



## CHIP Eligibility Component Payment Error Rate

Table T27. CHIP Eligibility Active Cases Payment Error Rates by State

| State           | Number of Payment Errors | Sample Dollars in Errors | Sample Dollars Paid  | Error Rate  | 95% CI             |
|-----------------|--------------------------|--------------------------|----------------------|-------------|--------------------|
| <b>National</b> | <b>1,841</b>             | <b>\$240,621.1</b>       | <b>\$5,617,602.3</b> | <b>4.2%</b> | <b>3.6% - 4.7%</b> |
| ST1             | 240                      | \$24,056.3               | \$77,070.7           | 30.9%       | 26.5% - 35.3%      |
| ST2             | 136                      | \$25,023.0               | \$99,381.7           | 24.3%       | 13.9% - 34.7%      |
| ST3             | 73                       | \$15,956.0               | \$88,218.0           | 17.6%       | 4.6% - 30.5%       |
| ST4             | 58                       | \$10,242.0               | \$76,762.0           | 13.0%       | 7.9% - 18.2%       |
| ST5             | 140                      | \$7,707.8                | \$64,057.1           | 12.0%       | 6.0% - 18.1%       |
| ST6             | 64                       | \$6,161.1                | \$55,483.1           | 11.2%       | 4.9% - 17.6%       |
| ST7             | 56                       | \$8,485.4                | \$80,417.7           | 10.6%       | 7.5% - 13.7%       |
| ST8             | 65                       | \$9,252.6                | \$109,781.2          | 8.4%        | 4.8% - 12.1%       |
| ST9             | 45                       | \$5,020.8                | \$62,878.3           | 8.0%        | 5.6% - 10.4%       |
| ST10            | 43                       | \$12,487.0               | \$162,758.0          | 7.7%        | 3.8% - 11.7%       |
| ST11            | 35                       | \$5,208.0                | \$93,962.0           | 7.7%        | 4.1% - 11.4%       |
| ST12            | 58                       | \$4,871.6                | \$67,426.7           | 7.3%        | 0.7% - 13.9%       |
| ST13            | 40                       | \$6,856.4                | \$95,796.1           | 6.8%        | 4.4% - 9.3%        |
| ST14            | 51                       | \$4,523.7                | \$72,879.9           | 6.1%        | 3.7% - 8.4%        |
| ST15            | 32                       | \$2,706.0                | \$44,528.0           | 6.1%        | 3.9% - 8.2%        |
| ST16            | 30                       | \$3,160.6                | \$57,165.4           | 5.7%        | 2.5% - 8.9%        |
| ST17            | 73                       | \$3,894.4                | \$50,852.7           | 5.1%        | 2.5% - 7.6%        |
| ST18            | 19                       | \$2,556.6                | \$83,839.9           | 5.0%        | ( 3.8%) - 13.8%    |
| ST19            | 38                       | \$5,955.0                | \$131,673.0          | 4.5%        | 0.3% - 8.7%        |
| ST20            | 61                       | \$4,060.0                | \$86,043.0           | 4.1%        | 1.3% - 6.9%        |
| ST21            | 37                       | \$4,197.0                | \$62,689.0           | 3.9%        | 0.9% - 6.9%        |
| ST22            | 33                       | \$2,225.1                | \$62,348.6           | 3.6%        | 0.5% - 6.6%        |
| ST23            | 10                       | \$2,024.0                | \$60,766.0           | 3.3%        | ( 0.7%) - 7.4%     |
| ST24            | 13                       | \$2,067.0                | \$110,937.0          | 3.3%        | 0.8% - 5.7%        |
| ST25            | 23                       | \$2,578.3                | \$62,559.5           | 3.2%        | 1.0% - 5.5%        |
| ST26            | 32                       | \$2,575.0                | \$79,902.0           | 3.2%        | 1.0% - 5.4%        |
| ST27            | 14                       | \$2,577.6                | \$80,645.4           | 3.2%        | 1.3% - 5.1%        |
| ST28            | 17                       | \$11,800.2               | \$392,907.6          | 3.0%        | 0.8% - 5.1%        |

| State | Number of Payment Errors | Sample Dollars in Errors | Sample Dollars Paid | Error Rate | 95% CI         |
|-------|--------------------------|--------------------------|---------------------|------------|----------------|
| ST29  | 37                       | \$2,427.8                | \$91,333.8          | 2.6%       | 0.6% - 4.7%    |
| ST30  | 15                       | \$2,726.0                | \$124,993.0         | 2.6%       | 0.1% - 5.0%    |
| ST31  | 22                       | \$1,624.4                | \$64,769.6          | 2.5%       | 0.0% - 5.0%    |
| ST32  | 34                       | \$2,259.1                | \$91,080.6          | 2.5%       | 1.1% - 3.9%    |
| ST33  | 15                       | \$1,601.8                | \$65,467.6          | 2.4%       | 1.1% - 3.8%    |
| ST34  | 21                       | \$1,624.6                | \$74,327.3          | 2.2%       | 0.3% - 4.1%    |
| ST35  | 11                       | \$1,370.0                | \$61,788.0          | 2.2%       | ( 1.1%) - 5.4% |
| ST36  | 15                       | \$2,779.0                | \$137,672.0         | 2.0%       | 0.7% - 3.4%    |
| ST37  | 17                       | \$4,634.6                | \$137,649.6         | 2.0%       | 0.1% - 3.8%    |
| ST38  | 12                       | \$1,309.4                | \$77,578.1          | 1.9%       | ( 0.2%) - 4.0% |
| ST39  | 13                       | \$1,697.0                | \$105,353.0         | 1.6%       | ( 0.2%) - 3.4% |
| ST40  | 14                       | \$9,917.0                | \$841,996.0         | 1.4%       | 0.2% - 2.6%    |
| ST41  | 15                       | \$2,388.6                | \$179,557.9         | 1.3%       | 0.2% - 2.4%    |
| ST42  | 19                       | \$884.7                  | \$84,104.5          | 1.0%       | 0.3% - 1.8%    |
| ST43  | 27                       | \$1,669.2                | \$184,312.1         | 0.9%       | 0.4% - 1.5%    |
| ST44  | 4                        | \$436.0                  | \$101,847.0         | 0.9%       | ( 0.6%) - 2.3% |
| ST45  | 1                        | \$228.2                  | \$115,033.6         | 0.5%       | ( 0.5%) - 1.6% |
| ST46  | 1                        | \$155.0                  | \$75,030.0          | 0.5%       | ( 0.5%) - 1.5% |
| ST47  | 1                        | \$526.0                  | \$110,836.0         | 0.5%       | ( 0.5%) - 1.5% |
| ST48  | 10                       | \$2,131.9                | \$67,381.3          | 0.4%       | ( 0.2%) - 1.0% |
| ST49  | 1                        | \$2.6                    | \$97,996.0          | 0.0%       | ( 0.0%) - 0.0% |
| ST50  | 0                        | \$0.0                    | \$62,602.0          | 0.0%       | 0.0% - 0.0%    |
| ST51  | 0                        | \$0.0                    | \$91,164.0          | 0.0%       | 0.0% - 0.0%    |

Note: Details do not always sum to the total due to rounding.

***CHIP Eligibility Payment Errors by Type of Error***

**Table T28. Summary of CHIP Eligibility Active Cases Projected Dollars by Type of Error**

| Error Type  | Number of Payment Errors | Sample Dollars in Errors | Projected Dollars in Error (millions) | Lower Confidence Limit (millions) | Upper Confidence Limit (millions) |
|---|--------------------------|--------------------------|---------------------------------------|-----------------------------------|-----------------------------------|
| Not Eligible  | 1,409                    | \$213,650.1              | \$508.5                               | \$449.4                           | \$567.6                           |
| Undetermined  | 149                      | \$18,247.5               | \$38.5                                | \$20.9                            | \$56.0                            |
| Eligible with Ineligible Services                                     | 12                       | \$1,061.2                | \$7.4                                 | \$0.9                             | \$14.0                            |
| Liability Understated   | 176                      | \$5,027.1                | \$7.2                                 | \$5.6                             | \$8.8                             |
| Liability Overstated  | 88                       | \$2,215.0                | \$4.9                                 | \$3.1                             | \$6.7                             |
| Managed Care Error, Eligible for Managed Care but Improperly Enrolled | 6                        | \$252.3                  | \$0.3                                 | \$0.0                             | \$0.6                             |
| Managed Care Error, Ineligible for Managed Care                       | 1                        | \$168.0                  | \$0.0                                 | N/A                               | N/A                               |
| <b>Total</b>  | <b>1,841</b>             | <b>\$240,621.1</b>       | <b>\$566.8</b>                        | <b>\$505.0</b>                    | <b>\$628.7</b>                    |
| Note: Details do not always sum to the total due to rounding.         |                          |                          |                                       |                                   |                                   |

**Table T29. Summary of CHIP Eligibility Active Cases Overpayment Errors**

| Error Type  | Number of Payment Errors | Sample Dollars in Errors | Projected Dollars in Error (millions) | Lower Confidence Limit (millions) | Upper Confidence Limit (millions) |
|---|--------------------------|--------------------------|---------------------------------------|-----------------------------------|-----------------------------------|
| Not Eligible  | 1,409                    | \$213,650.1              | \$508.5                               | \$449.4                           | \$567.6                           |
| Undetermined  | 149                      | \$18,247.5               | \$38.5                                | \$20.9                            | \$56.0                            |
| Eligible with Ineligible Services                                     | 12                       | \$1,061.2                | \$7.4                                 | \$0.9                             | \$14.0                            |
| Liability Understated   | 176                      | \$5,027.1                | \$7.2                                 | \$5.6                             | \$8.8                             |
| Managed Care Error, Eligible for Managed Care but Improperly Enrolled | 6                        | \$252.3                  | \$0.3                                 | \$0.0                             | \$0.6                             |
| Managed Care Error, Ineligible for Managed Care                       | 1                        | \$168.0                  | \$0.0                                 | N/A                               | N/A                               |
| Liability Overstated  | 0                        | \$0.0                    | \$0.0                                 | \$0.0                             | \$0.0                             |
| <b>Total</b>  | <b>1,753</b>             | <b>\$238,406.1</b>       | <b>\$562.0</b>                        | <b>\$500.1</b>                    | <b>\$623.8</b>                    |
| Note: Details do not always sum to the total due to rounding.         |                          |                          |                                       |                                   |                                   |

**Table T30. Summary of CHIP Eligibility Active Cases Underpayment Errors**

| Error Type  | Number of Payment Errors | Sample Dollars in Errors | Projected Dollars in Error (millions) | Lower Confidence Limit (millions) | Upper Confidence Limit (millions) |
|---|--------------------------|--------------------------|---------------------------------------|-----------------------------------|-----------------------------------|
| Liability Overstated  | 88                       | \$2,215.0                | \$4.9                                 | \$3.1                             | \$6.7                             |
| Eligible with Ineligible Services                                     | 0                        | \$0.0                    | \$0.0                                 | \$0.0                             | \$0.0                             |
| Liability Understated   | 0                        | \$0.0                    | \$0.0                                 | \$0.0                             | \$0.0                             |
| Managed Care Error, Eligible for Managed Care but Improperly Enrolled | 0                        | \$0.0                    | \$0.0                                 | \$0.0                             | \$0.0                             |
| Managed Care Error, Ineligible for Managed Care                       | 0                        | \$0.0                    | \$0.0                                 | N/A                               | N/A                               |
| Not Eligible  | 0                        | \$0.0                    | \$0.0                                 | \$0.0                             | \$0.0                             |
| Undetermined  | 0                        | \$0.0                    | \$0.0                                 | \$0.0                             | \$0.0                             |
| <b>Total</b>  | <b>88</b>                | <b>\$2,215.0</b>         | <b>\$4.9</b>                          | <b>\$3.1</b>                      | <b>\$6.7</b>                      |
| Note: Details do not always sum to the total due to rounding.         |                          |                          |                                       |                                   |                                   |

**Table T31. Summary of CHIP Eligibility Negative Cases**

| Error Type  | Number of Sample Cases | Percentage of Sample Cases |
|---|------------------------|----------------------------|
| Correct   | 9,906                  | 96.4%                      |
| Improper Termination  | 257                    | 2.5%                       |
| Improper Denial   | 118                    | 1.1%                       |
| <b>Total</b>  | <b>10,281</b>          | <b>100.0%</b>              |
| Note: Details do not always sum to the total due to rounding. |                        |                            |

## Appendix 5: Medicaid and CHIP Review Methodology

Medicaid and CHIP FFS claims were subjected to data processing review and, if applicable, medical review. Medicaid and CHIP managed care payments were subjected only to data processing review. If an error was identified during medical review or data processing review, states were given the opportunity to participate in difference resolution and appeal to CMS. Medicaid and CHIP eligibility cases were reviewed by states.

### *Medical Review Methodology*

From a state's quarterly sample selection, detailed information on each sampled claim was requested from the state and copies of the relevant medical records were requested from the providers. The medical records were used to perform medical reviews on the claims to validate whether the claim was paid correctly. Each claim was assessed to determine the following:

- Adherence to state guidelines and policies related to the service type;
- Completeness of medical record documentation to substantiate the claim;
- Medical necessity of the service provided;
- Validation that the service was provided as ordered and billed; and
- Claim was correctly coded.

A medical review error is a payment error that is determined from a review of the medical documentation submitted, the relevant state policies, and a comparison to the information presented on the claim. The medical reviews consisted of reviewing sampled FFS claims for the errors listed in Table Appx.1.

**Table Appx.1. Medical Review Error Codes**

| Error Code | Error                      | Definition   |
|------------|----------------------------|--|
| MR01       | No Documentation           | The provider did not respond to the request for records.   |
| MR02       | Insufficient Documentation | There is not enough documentation to support the service.  |
| MR03       | Procedure Coding Error     | The provider performed a procedure but billed using an incorrect procedure code.   |
| MR04       | Diagnosis Coding Error     | The provider billed using an incorrect diagnosis and /or DRG.  |
| MR05       | Unbundling                 | The provider billed for the separate components of a procedure code when only one inclusive procedure code should have been billed.  |
| MR06       | Number of Unit(s) Error    | The provider billed for an incorrect number of units for a particular service provided.  |
| MR07       | Medically Unnecessary      | The provider billed for a service determined to have been medically unnecessary based upon the information regarding the patient's condition in the medical record.  |
| MR08       | Policy Violation           | Either the provider billed and was paid for a service that was not in agreement with state policy, or the provider billed and was not paid for a service that, according to state policy, should have been paid. |

| Error Code | Error       | Definition   |
|------------|-------------|--|
| MR09       | Admin/Other | A payment error was discovered during a medical review but did not fit into one of the above error categories. The specific nature of the error is recorded. |

### ***Data Processing Review Methodology***

Data processing reviews were also conducted to validate that each sampled payment was processed correctly based on information found in the state's claims processing system when it was adjudicated compared with the following:

- State specific policies and fee schedules in effect at the time of payment;
- Beneficiary enrollment; and
- Provider participation in the Medicaid/CHIP program.

A data processing error is a payment error resulting in an overpayment or underpayment that could be avoided through the state's Medicaid Management Information System (MMIS) or other payment system. Claims not processed through a state's MMIS were subject to validation through a paper audit trail, state summary or other proof of payment. The data processing reviews consisted of reviewing the sampled claims for the errors listed in Table Appx.2.

**Table Appx.2. Data Processing Error Codes**

| Error Code | Error                                | Definition   |
|------------|--------------------------------------|--|
| DP01       | Duplicate Item                       | An exact duplicate of the sampling unit was paid.  |
| DP02       | Non-covered Service                  | State policies indicate that the service is not payable by Medicaid/CHIP under the state plan or for the coverage category under which the person is eligible.   |
| DP03       | FFS Claim for a Managed Care Service | The recipient is enrolled in a managed care plan and the managed care plan should have covered the service rather than paid under FFS.   |
| DP04       | Third-party Liability                | A third-party insurer is liable for all or part of the payment.  |
| DP05       | Pricing Error                        | Payment for the service does not correspond with the pricing schedule for that service.  |
| DP06       | Logic Edit                           | A system edit was not in place based on policy or a system edit was in place but was not working correctly and the sampling unit was paid (e.g., incompatibility between gender and procedure, or ineligible recipient or provider). |
| DP07       | Data Entry Error                     | Clerical error in the data entry of the sampling unit.   |
| DP08       | Rate Cell Error                      | The recipient was enrolled in managed care and payment was made, but for the wrong rate cell.  |
| DP09       | Managed Care Payment Error           | The recipient was enrolled in managed care, but was assigned the wrong payment amount.   |
| DP10       | Admin/Other                          | A payment error was discovered during a data processing review but   |

| Error Code | Error | Definition   |
|------------|-------|--|
|            |       | the error did not fall into one of the above error categories. The specific nature of the error is recorded. |

### ***Difference Resolution***

If an error was identified the state was notified and given an opportunity to review the documentation associated with the payment and dispute the error finding. An independent difference resolution review was performed to consider the state's information and to make a final determination. If the state determined additional review was necessary, the state could then appeal the error finding to CMS.

Errors that were not challenged by the states or upheld following the difference resolution and appeal process were included in the payment error rate calculation. If a payment error was found in both the data processing review and medical review for a specific claim, the total error amount reported was adjusted to not exceed the total paid amount for the claim, unless the underpayment amount exceeded the original claim amount, such as in the case of zero-paid claims.

### ***Eligibility Review Methodology***

After the sample was selected for each sample month, state PERM review staff performed eligibility reviews on each sampled case from the active and negative universe. Active and negative cases are separately reviewed. Each active case was reviewed for eligibility as of the last state action. The review focuses on caseworker action in order to ensure that the caseworker acted in accordance with state and federal policy based on the information available at the time of the last state action. Negative cases were reviewed to verify whether the recipient was denied or terminated from the programs correctly.

For each case sampled in the active case universe, claims data were collected for payments made on the behalf of the recipient for services received in the sample month and paid in that month and in the four subsequent months. These payments constitute the universe of payments affected by the eligibility review of the sampled cases. Because states perform the eligibility reviews, there is no difference resolution at the federal level for eligibility payment errors.

Upon reviewing a case to verify eligibility, states report their eligibility and payment findings based on the review finding codes in Table Appx.3. Cases can be found eligible, not eligible, undetermined, or eligible but with a payment error (e.g., a portion of the total payments for a reviewed case can be improperly paid, while the rest of the payments were made correctly).

**Table Appx.3. Eligibility Review Finding Codes**

| Code | Review Finding | Definition  |
|------|----------------|---|
| E    | Eligible       | An individual recipient meets the state's categorical and financial criteria for receipt of benefits under the Medicaid/CHIP program. |



| Code   | Review Finding  | Definition  |
|--------|---|---|
| EI     | Eligible with Ineligible Services                                     | An individual recipient meets the state's categorical and financial criteria for receipt of benefits under the Medicaid/CHIP program but received services that were not covered under his/her benefit package. |
| NE     | Not Eligible  | An individual recipient is receiving benefits under the program but does not meet the state's categorical and financial criteria for the month eligibility is being verified.                                   |
| U      | Undetermined  | A recipient case subject to a Medicaid/CHIP eligibility determination under PERM about which a definitive determination could not be made.  |
| L/O-BP | Liability Overstated – Beneficiary Premium                            | The recipient paid too much toward his/her beneficiary amount.  |
| L/O-SD | Liability Overstated – Spend Down                                     | The recipient's spend down amount was calculated to be higher than it should have been and the state paid too little.   |
| L/O-O  | Liability Overstated – Other  | The recipient paid too much toward his/her liability amount (e.g., cost of institutional care) and the state paid too little.   |
| L/U-BP | Liability Understated – Beneficiary Premium                           | The recipient paid too little toward his/her beneficiary amount.  |
| L/U-SD | Liability Understated – Spend Down                                    | The recipient's spend down amount was calculated to be lower than it should have been and the state paid too much.  |
| L/U-O  | Liability Understated - Other   | The recipient paid too little toward his/her liability amount (e.g., cost of institutional care) and the state paid too much.   |
| MCE1   | Managed Care Error, Ineligible for Managed Care                       | Upon verification of residency and program eligibility, the recipient is enrolled in managed care but is not eligible for managed care.   |
| MCE2   | Managed Care Error, Eligible for Managed Care but Improperly Enrolled | Recipient is eligible for both the program and for managed care, but not enrolled in the correct managed care plan as of the month eligibility is being verified.   |

Undetermined cases are included in the error counts and improper payments. Findings of undetermined occur when, after due diligence, evidence cannot be obtained to make a definitive determination of eligibility on a case.

### ***Claim Categories***

Claim categories are listed in Table Appx.4.

**Table Appx.4. Claim Categories**

| Claim Category Code | Claim Category Description                                 |
|---------------------|--|
| 1                   | Inpatient and Outpatient Hospital                          |
| 2                   | Psychiatric, Mental Health, and Behavioral Health Services |
| 3                   | Nursing Facility, Intermediate Care Facilities             |
| 4                   | ICF for the Mentally Retarded and Group Homes              |
| 5                   | Outpatient Hospital Services and Clinics                   |
| 6                   | Physicians and Other Licensed Practitioner Services        |

| Claim Category Code | Claim Category Description  |
|---------------------|---|
| 7                   | Dental and Other Oral Surgery Services  |
| 8                   | Prescribed Drugs  |
| 9                   | Home Health Services  |
| 10                  | Personal Support Services   |
| 11                  | Hospice Services  |
| 12                  | Therapies, Hearing and Rehabilitation Services  |
| 13                  | Habilitation and Waiver Programs, School Services   |
| 14                  | Laboratory, X-ray and Imaging Services  |
| 15                  | Vision: Ophthalmology, Optometry and Optical Services   |
| 16                  | Durable Medical Equipment (DME) and Supplies, Prosthetic/Orthopedic Devices and Environmental Modifications |
| 17                  | Transportation and Accommodations   |
| 18                  | Denied Claims   |
| 19                  | Crossover Claims  |
| 30                  | Capitated Care/Fixed Payments   |
| 50                  | Managed Care  |
| 99                  | Unknown   |

## Appendix 6: Statistical Sampling and Formulae

The sampling process for PERM follows a stratified two-stage design. First, all 50 states plus the District of Columbia were stratified into three strata of 17 states each based on historical total Medicaid FFS expenditures. The top strata consisting of the 17 states with the greatest expenditures were further divided into two strata: a nine state stratum of the largest expenditure states and a stratum with the remaining eight states. The states from each state stratum were selected by random sampling. States were selected to be reviewed on a three year rotation such that 17 different states would be reviewed each year and all states would be reviewed over a three year time span. This sampling of states constitutes the first stage of the sample. Within each sampled state the universe of claims was then further stratified. The sampled claims were subjected to medical and data processing reviews, as appropriate, to identify proper and improper payments. As a result of the reviews, state level error rates were calculated.

The state level error rate is estimated by this equation as:

$$\hat{R}_i = \frac{\hat{t}_{e_i}}{\hat{t}_{p_i}}$$

In the equation,  $\hat{R}_i$  is the estimated error rate for state i;  $\hat{t}_{e_i}$  is the estimated dollars in error projected for state i and  $\hat{t}_{p_i}$  is the estimated total payments for state i. Then,

$$\hat{t}_{e_i} = \sum_{j=1}^J \frac{M_{i,j}}{m_{i,j}} E_{i,j}$$

and

$$\hat{t}_{p_i} = \sum_{j=1}^J \frac{M_{i,j}}{m_{i,j}} P_{i,j}$$

In these equations,  $M_{i,j}$  is the number of items in the universe for state i in strata j and  $m_{i,j}$  is the number of items in the sample for state i in stratum j. The ratio of items in the universe to items in the sample (i.e., the weight for that stratum, quarter, and state) is the inverse of the sampling frequency. Dollars in error in the sample for stratum j and state i, denoted  $E_{i,j}$ , is weighted by the inverse of the sampling frequency to estimate dollars in error in the universe for that stratum. For example, if there are 10,000 items in the universe in stratum j, and the sample size in j is 200 items, the weight for the dollars in error in the stratum j sample is 50 (10,000/200). The estimated total dollars in error are then added across each of the J strata to obtain total dollars in error for the universe. Total payments are estimated in the same way, where  $P_{i,j}$  is the total payments in the sample in stratum j for state i.

### ***Cycle-Specific Statistics***

To go from the error rates for individual states to a cycle-specific error rate, each state is first benchmarked to its reported payments. Then, the error and payment amounts are summed across

the cycle states and divided to calculate the cycle rate. This ensures that the states' payment and error amounts will be proportional to the size of the state. In other words, a larger state would contribute more to the cycle-specific error rate than a smaller state.

The formula for the 17 state cycle error rate is as follows:

$$\hat{R}_H = \frac{\sum_{i=1}^u t_{p_i} \hat{R}_i}{t_h}$$

where:

$\hat{R}_H$  = 17 state cycle error rate.

$t_{p_i}$  = total payments for state i.

$\hat{R}_i$  = estimated error rate for state i.

u = total number of states sampled in the cycle (17 for Medicaid and CHIP).

$t_h$  = total universe payments for the 17 states in the cycle.

### ***Rolling National Error Rates***

The rolling national error rates are calculated using the same approach as for the 17 state cycle error rate. In 2014, the rolling national error rates for Medicaid and CHIP are calculated from data sampled in 2012, 2013, and 2014. Each of the rolling error rates (i.e., total program, FFS, MC, and Eligibility) is calculated with the same methodology.

Data from 2012, 2013, and 2014 are combined and weighted by each state's expenditures from the year they were sampled. The formula for the rolling error rate is as follows:

$$\hat{R}_T = \frac{\sum_{i=1}^s t_{p_i} \hat{R}_i}{t_p}$$

where:

$\hat{R}_T$  = rolling error rate.

$t_{p_i}$  = total payments for state i.

$\hat{R}_i$  = estimated error rate for state i.

s = total number of states sampled (51 for Medicaid and CHIP).

$t_p$  = total universe payment.

## ***Combining Claims Review Error Rates across Program Components***

Combining the claims review payment error rates, (i.e., combining the FFS and managed care payment error rates for Medicaid) is relatively straightforward because the population payments are known from federal financial management reports. Note that CMS does not utilize true population payments in calculating state rates for each program component. The reason for this is two-fold. First, the combined ratio estimator used allows for correction in possible bias if the sampled average payment amount differs from the universe average payment amount. However, if CMS utilized a combined ratio estimator to combine the program components at the state level, one program component that realized high sample average payment amount compared to the universe average would have too much influence in projections. For this reason, combining program component rates using the shares of expenditures as weights reduces the variance in the estimates from this source. Furthermore, following this method allows the same method for combining program component claims review rates at the state, cycle-specific, and national level.

The following equations utilize the estimated state, cycle-specific, or national error rates calculated in the previous three sections.

Let the overall claims review error rate for Medicaid/CHIP be defined as:

$$\hat{R}_C = \frac{t_{p_{FFS}} \hat{R}_{FFS} + t_{p_{MC}} \hat{R}_{MC}}{t_p}$$

where:

$$t_p = t_{p_{FFS}} + t_{p_{MC}} .$$

In this equation,  $\hat{R}$  is the estimated error rate for FFS, managed care or combined (C), and  $t$  represents total payments for FFS, managed care, or the total, depending upon the subscript.

## ***Payment Error Rate Formula***

Sampled claims or cases are subject to reviews, and a payment error rate is calculated based on those reviews. The payment error rate is an estimate of the proportion of improper payments made in the Medicaid/CHIP program to the total payments made.

The national rolling error rate was computed using a separate ratio estimator, which combines the error rates from each state using the federally reported Medicaid/CHIP expenditures for those states. This method projects the improper payments and total payments using the sampling frequency of units from the state. State, cycle-specific, and national rolling rates are calculated for each program component—FFS, managed care and eligibility—and are also combined into an overall rate, representing the total error rates for the program at the state, cycle-specific, and national levels.

For the calculation of state level statistics, the error rate estimator is a combined ratio estimator. The numerator consists of estimated dollars in error in the universe, and the denominator is estimated total payments, both projected from the sample on the basis of the sampling weights (i.e., the inverses of the sampling frequencies). The sample is drawn from a universe that is divided into the strata relevant to that universe, as described above. The sample dollars in error and sample payments are weighted by the inverse of the strata sampling frequencies to estimate universe values. The sampling frequencies, which are the rates at which items were sampled, vary by stratum.

To calculate the cycle-specific or national rolling error rate based on the individual state error rates, each state is first benchmarked to its reported payments. Then, the error and payment amounts are summed across the cycle states or all 51 states and divided in order to calculate the error rate.

### ***Eligibility Error Rate Formula***

Three strata were defined for active cases: new applications, redeterminations, and all other cases. For cycle 2 states this year, between 324 and 972 cases were sampled from the active case universe, depending upon the state, its prior active eligibility payment error rate, margin of error, and state preference for changing sample sizes or remaining consistent with previous cycles. For the negative cases, considered as an additional stratum, between 132 and 792 cases were sampled per state, again, depending upon the criteria just listed for the active case strata but applied to the negative cases. Annual sample sizes were evenly apportioned throughout the 12 reporting months for both active and negative cases and strata. For MEQC-option states, there needed to be at least 42 PERM-eligible active cases per month that were stratified after sampling into the three active case strata.

Claims data were associated with each of the cases. The dollar value of eligibility errors assessed was based on the implications of the eligibility review for the validity of the claims associated with each case. For each state, the results of the reviews for each stratum were projected to the universe based on the sampling frequencies for each stratum in a manner analogous to that described above for the FFS and managed care errors.

The sample sizes for each state level component of PERM (i.e., FFS, managed care, active eligibility payment, and negative eligibility case error rates) were designed to achieve precision in the component error rate estimate at the state level of +/- 3 percentage points with a 95 percent confidence level, under the assumption that almost all of the underlying component error rates would be less than five percent, with managed care often less than three percent, and no state eligibility error rate exceeding about 15%.

A national rolling eligibility error rate was calculated using the same method employed in the FFS and managed care calculations. It is based on calculating an eligibility error rate for each of the 51 states, and combining these rates into an overall national rolling rate based on the share of expenditures for the program in each state.

## ***Combining Claims Error Rates and the Eligibility Error Rate***

After combining the FFS and managed care components into one overall claims payment error rate for Medicaid at the state, cycle-specific, and national rolling levels, these combined claims and managed care payment error rates are then combined with the respective eligibility payment error rates. The combining of the claims payment error rate and the eligibility payment error rate is referred to as the combined error rate. The following procedure is followed at the state, cycle-specific, and national rolling levels. That is, the claims payment error rates are combined at the state level and combined in separate instances at the cycle-specific level and then at the national level. The estimated combined payment error rate is given by:

$$\hat{R}_T = \hat{R}_C + \hat{R}_E - \hat{R}_E \hat{R}_C$$

where:

$\hat{R}_T$  denotes the estimated Total, or Combined Error Rate.

$\hat{R}_C$  denotes the estimated Claims Error Rate.

$\hat{R}_E$  denotes the estimated Eligibility Error Rate.